

FROM SURGERIES TO STARTUPS:
HOW INSTITUTIONS SHAPE ENTREPRENEURIAL ACTIVITY
IN THE FIELD OF HEALTH CARE

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William Chad Carlos
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William Chad Carlos, Ph.D.

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The health care system in the United States is sick. Despite leading the world in health care expenditures, the U.S. lags behind most industrialized nations on many dimensions of health care outcomes. With the growing cost of and increasing demand for health care services, entrepreneurs are needed to develop and implement innovative solutions. However, entrepreneurship is a complex process, particularly in highly institutionalized fields such as health care where entrepreneurs must navigate a complex array of social obstacles. In this dissertation, I investigate entrepreneurship in the field of health care through the lens of institutional theory. I pay special attention to the role of culture embedded in the local region as well as the professional field and investigate how these social forces shape entrepreneurial activity. In this way, this dissertation returns to the foundational (yet rarely studied) premise of institutions as the building blocks needed to create new organizations (Meyer & Rowan, 1977).

The first chapter presents a systematic review of the literature that links culture to entrepreneurship. Reviewing all articles published in the top management, entrepreneurship, and sociology journals over the past 20 years, I find that extant literature in this area is sparse and has overwhelmingly focused on national cultural differences based on the dimensions of culture developed by Hofstede (1984).

The second chapter sets the stage for the empirical analysis conducted in the final chapter. This section traces the emergence of ambulatory surgery centers (ASCs) in the United States and dives into the contextual details surrounding the technical and social factors enabling the emergence of this new kind of health care facility.

The final chapter develops and tests theory related to how institutions shape entrepreneurial activity. Here I explore how pressures that constrain entrepreneurship in one social sphere may be overcome by institutional pressures that facilitate entrepreneurship in other social spheres. Using panel data on all physician-founded ambulatory surgery centers in the United States from 1990 to 2008, I find that institutional forces associated with the regional culture, organizational field, and profession influence the propensity for doctors to become entrepreneurs and shape the strategies they adopt.

BIOGRAPHICAL SKETCH

W. Chad Carlos obtained his bachelor's and master's degrees in accountancy from Brigham Young University in 2003. In addition to his studies of accounting, Chad completed a minor in Japanese and lived in Asia and the Middle East while engaging in academic studies and volunteer activities. Upon graduating from BYU, Chad earned his CPA and worked as a senior consultant for the public accounting firm KPMG in its Silicon Valley Office. During his tenure at KPMG, Chad specialized in serving clients in the high-technology industry. Many of Chad's research ideas stem from his experiences living in different cultures and interacting with innovative organizations and entrepreneurs in Silicon Valley. He received his PhD in management from the Johnson Graduate School of Management at Cornell University in 2013 and is now an assistant professor of entrepreneurship in the Marriott School of Management at BYU. Chad is married to Melissa Hales and is the father of three beautiful children; Mia (6), Ty (4), and Austin (1).

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CHAPTER 1: THE LINK BETWEEN CULTURE AND ENTREPRENEURSHIP

Entrepreneurship necessarily takes place within culture, it is utterly shaped by culture, and it fundamentally consists in interpreting and influencing culture. Consequently, the social scientist can understand it only if he is willing to immerse himself in the cultural context in which the entrepreneurial process occurs.

—Don Lavoie (1991, p. 36)

Introduction

The idea that culture can influence economic activity, including the creation of innovations and the establishment of new ventures, has long been of interest to scholars from various fields. From Weber's (1958) conception of a "spirit of capitalism" to Kirzner's (1984) notion of an "entrepreneurial spirit," scholars have pointed to the power of local cultural elements in shaping entrepreneurship. More recently, it has been shown that culture plays a primary role in fostering entrepreneurship above and beyond the impact of material resources and industrial infrastructure alone, and that these cultural influences vary across regions (Saxenian, 1996).

For institutional theorists, culture represents one of the primary conceptual pillars along with regulative and normative institutions (Scott, 2008a). However, it is the cultural-cognitive pillar that has been called the "*major distinguishing feature of neoinstitutionalism*" (Scott, 2008a, p. 57; emphasis added). Given the centrality of culture in institutional theory, we would expect that studies of entrepreneurship from an institutional perspective would place emphasis on this cultural dimension. Despite a recent growth in the number of studies approaching entrepreneurship from the institutional perspective (Tolbert, David, & Sine, 2010), those considering the role of

culture remain surprisingly rare. In this chapter, I briefly outline the concept of culture and entrepreneurship and then present the results of a systematic review of the literature on the connection between culture and entrepreneurship published in the top management, entrepreneurship, and sociology journals over the past 20 years.

Culture

Conceptualizations of culture in sociology have evolved from an oversocialized view of culture as an inescapable set of norms and values to a more nuanced view of culture from a cognitive perspective that allows for the existence of fragmented cultures influencing actors in different ways (DiMaggio, 1997). In this way, the cognitive dimensions of culture have come to replace the normative and value-laden cultural conceptions espoused by early theorists such as Parsons and Durkheim (Scott, 2008a). Following this more cognitive perspective, culture has been defined as a socially established set of meanings embodied in symbols (Geertz, 1973) or shared social knowledge that comes to exist as objective reality (Berger & Luckman, 1967). Culture provides a set of cognitive schema that influence thought and a set of scripts that define roles and shape attitudes toward life (Zucker, 1977; Sewell, 1992; Scott, 2008a). As a result, culture affects individual's perceptions of the world around them, biases their thoughts, and influences their actions.

The manifestation of culture can be seen in patterns of behavior that are based on shared meanings and beliefs about those behaviors (Tolbert, 1988). As culture is institutionalized, evidence of its existence can be found in social structures and symbols that represent the underlying cultural beliefs. Over time, structures and practices that are developed in response to certain opportunities or challenges become ingrained as taken-for-granted parts of social life. Within organizations, the perpetuation of institutions is carried out through socialization processes supported by

formal mechanisms embedded in the organizational structure (Van Maanen & Schein, 1979; Tolbert, 1988). A similar process occurs beyond the boundaries of an organization as beliefs, and ideologies become embedded in the local cultural fabric and ingrained in formal institutional structures. For example, venture capital firms, government agencies (e.g., Small Business Administration, local chambers of commerce, etc.), and private foundations (e.g., The Kauffman Foundation) are not only symbols providing evidence of an underlying culture of entrepreneurship, but are also key structural components in perpetuating the taken-for-granted nature of entrepreneurship.

Entrepreneurship

Like culture, entrepreneurship holds different meanings to scholars from different fields. Definitions of entrepreneurship range from the discovery and exploitation of profitable opportunities (Kirzner, 1997; Shane & Venkataraman, 2000) to innovative activities that lead to new products and markets (Schumpeter, 1943/1994) and at the most basic level the creation of new organizations (Gartner, 1988). Despite the varied technical definitions of the term, entrepreneurship is viewed both in terms of a means of reproducing existing organizational forms and as a force of creative destruction challenging existing social orders and ushering in the creation of new populations. Early work on entrepreneurship focused heavily on the traits and disposition of founders (e.g., Welsh & Young, 1982; Begley & Boyd, 1987). This work identified personality traits such as high need for achievement (McClelland, 1961), the ability to tolerate uncertainty (Khilstrom & Laffont, 1979), and the propensity for risk-taking (Begley & Boyd, 1987) as key traits of entrepreneurs. Another dominant stream of entrepreneurship comes from the field of economics, where the general thesis is that entrepreneurs will exploit opportunities if the expected

value of doing so exceeds the opportunity cost and associated risk premium for bearing the uncertainty (e.g., Venkataraman, 1997).

Although increasing numbers of studies have adopted a sociological view, early work often overlooked the impact of broader social factors. To the extent to which the sociological view was considered, it was often at a very abstract level (Stinchcombe, 1965). More recently, however, scholars have paid closer attention to the social dimensions of entrepreneurship, particularly from an institutional approach. Through the lens of institutional theory, entrepreneurs can be viewed as actors embedded within a social system, where their actions are guided by taken-for-granted beliefs, normative expectations, and socially shared assumptions (DiMaggio & Powell, 1983; Tolbert & Zucker, 1996; Scott, 2008a).

Rather than providing an exhaustive review of the vast and varied literatures on entrepreneurship and culture independently, I now turn my attention to the work that directly links these two concepts. Specifically, I focus on the interplay between entrepreneurs and their cultural environment and consider how existing literature addresses questions, such as, How does culture shape the kinds of opportunities that entrepreneurs identify and exploit? How does culture impact the rate of entrepreneurship and the types of new ventures that are established? How does culture change over time and space, and how do these changes impact entrepreneurship? Can entrepreneurs manipulate culture for strategic purposes?

Review Methodology

To analyze the research connecting culture to entrepreneurship, I undertook a systematic review of all articles published on this topic in the major management, entrepreneurship, and sociology journals over the past 20 years. To do this, I searched for all articles on culture and entrepreneurship appearing in the following journals.

Management Journals

Administrative Science Quarterly

Academy of Management Journal

Organization Science

Entrepreneurship Journals

Journal of Business Venturing

Entrepreneurship Theory & Practice

Sociology Journals

American Journal of Sociology

American Sociological Review

Using Boolean search functions, I searched for all articles that included some form of the terms “entrepreneur” in near proximity to the term “culture” appearing anywhere in the article text. This search was carried out using the search term “entrepreneur* N5 cultur*” where the “*” is a wildcard that allows for search results to be displayed for any form of the truncated word. The term “N5” is the proximity function which in this case was specified to return responses in which the two search terms appear within five words of each other in the text. I used these search commands to identify all articles meeting these criteria published during the 20-year period from 1992 through July 2012. The initial search yielded a list of 98 articles. After reviewing each article, I removed those that did not directly address the relationship between culture external to an organization and some dimension of entrepreneurship. For example, many of the articles were focused exclusively on culture within organizations, and several were studies of cultural organizations, like symphonies, jazz

companies, and other producers of cultural goods. A number of the articles included in the search results had no central focus on culture and entrepreneurship and appeared only because they included works in the reference section that met the criteria specified by the search function.

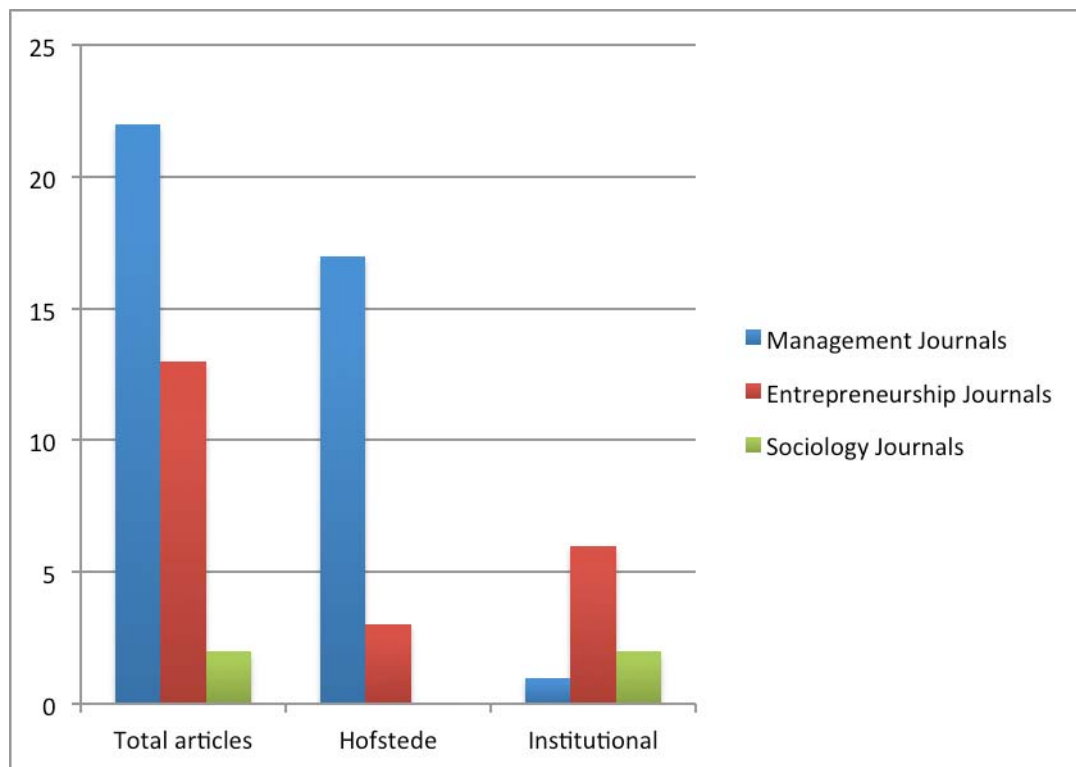


Figure 1. Comparison of Articles on Culture and Entrepreneurship by Journal Type. Management journals include *Administrative Science Quarterly*, *Academy of Management Journal*, and *Organization Science*. Entrepreneurship journals include *Journal of Business Venturing* and *Entrepreneurship Theory & Practice*. Sociology journals include *American Journal of Sociology* and *American Sociological Review*.

After performing this winnowing process, I was left with 41 articles that directly consider the impact of culture on some dimension of entrepreneurship. Entrepreneurial outcomes included in these studies were varied and ranged from the motives and perceptions of entrepreneurs (McGrath, MacMillan, & Schneiberg, 1992; Baum, et al., 1993; Dodd, 2002), to the structure of entrepreneur's networks (Burt, Hogarth, & Michaud, 2000), the amount of resources obtained by entrepreneurs (Zott

& Huy, 2007; Li & Zahra, 2011), and the organizational characteristics adopted by new ventures (Lounsbury, 2007). As Figure 1 indicates, of the 41 articles published, only six articles appeared in sociology journals and 13 appeared in general management journals. The entrepreneurship journals accounted for the bulk of the published articles, with 22 studies published during this period. Over the 20-year period analyzed, the number of articles published each year remained fairly constant, with an average of less than two articles published per year. Several years were associated with zero publications and the high-water mark was set in 2002, when five articles were published (see Figure 2). The increased number of articles published in 2002 is the result of a special issue on entrepreneurship and culture published that year in *Entrepreneurship Theory & Practice*.

In performing this review, I found that the search terms did not identify several relevant studies that examine the concept of culture and entrepreneurship yet use different terminology. This challenge was most common in identifying relevant work published in the sociology journals perhaps because of sociologists' lower interest in entrepreneurial outcomes or due to the plethora of constructs utilized by sociologists that closely resemble the construct of culture. Because of this challenge, it was difficult to identify any common set of search terms that captured all related articles in the sociology journals; I expanded my search to review the citation lists of relevant articles to check for related studies. Through this methodology, I identified several additional works that used different terminology in exploring similar questions. For example, Molotch, Freudenburg, and Paulsen (2000) use "character" and "tradition" to explain social dimensions rooted in the local community as leading to geographic variation in economic activities; Sorenson and Audia (2000) argue that entrepreneurship is a function of socially embedded resources such as tacit knowledge, social ties, and self-confidence; and Stuart and Ding (2006) illustrate that socialization

processes influence the propensity for actors to become entrepreneurs. Although these studies do not explicitly make use of the term “culture,” they rely on similar theoretical arguments and constructs that are in some cases nearly indistinguishable from culture.

Overall, reviewing the literature reveals some interesting trends. First, it is clear that studies connecting culture to entrepreneurship have been more prevalent in entrepreneurship journals than in general management journals. Of the 41 articles reviewed, over half were published in an entrepreneurship journal. It is also clear that the lion’s share of articles on this topic have been based on the dimensions of culture developed by Hofstede (1984). In fact, 20 of the 41 studies reviewed build on Hofstede’s dimensions. However, of these 20 articles in the Hofstede tradition, nearly all (85%) were published in entrepreneurship journals. Articles that could be considered to fall under some portion of the institutional theory umbrella accounted for 24 percent of the total articles published, and virtually all of these were published in the general management and sociology journals. These articles also represent a much more recent trend, with the majority occurring in just the past five years.

A remaining 22 percent of the articles did not clearly fall under the rubric of any given theoretical camp. Most of these studies failed to define culture and involved comparing a given outcome across countries, using different nations as an all-encompassing proxy for cultural differences. In the next section, I briefly review the two major lines of study emerging from this review and then conclude by highlighting opportunities for future work in this area.

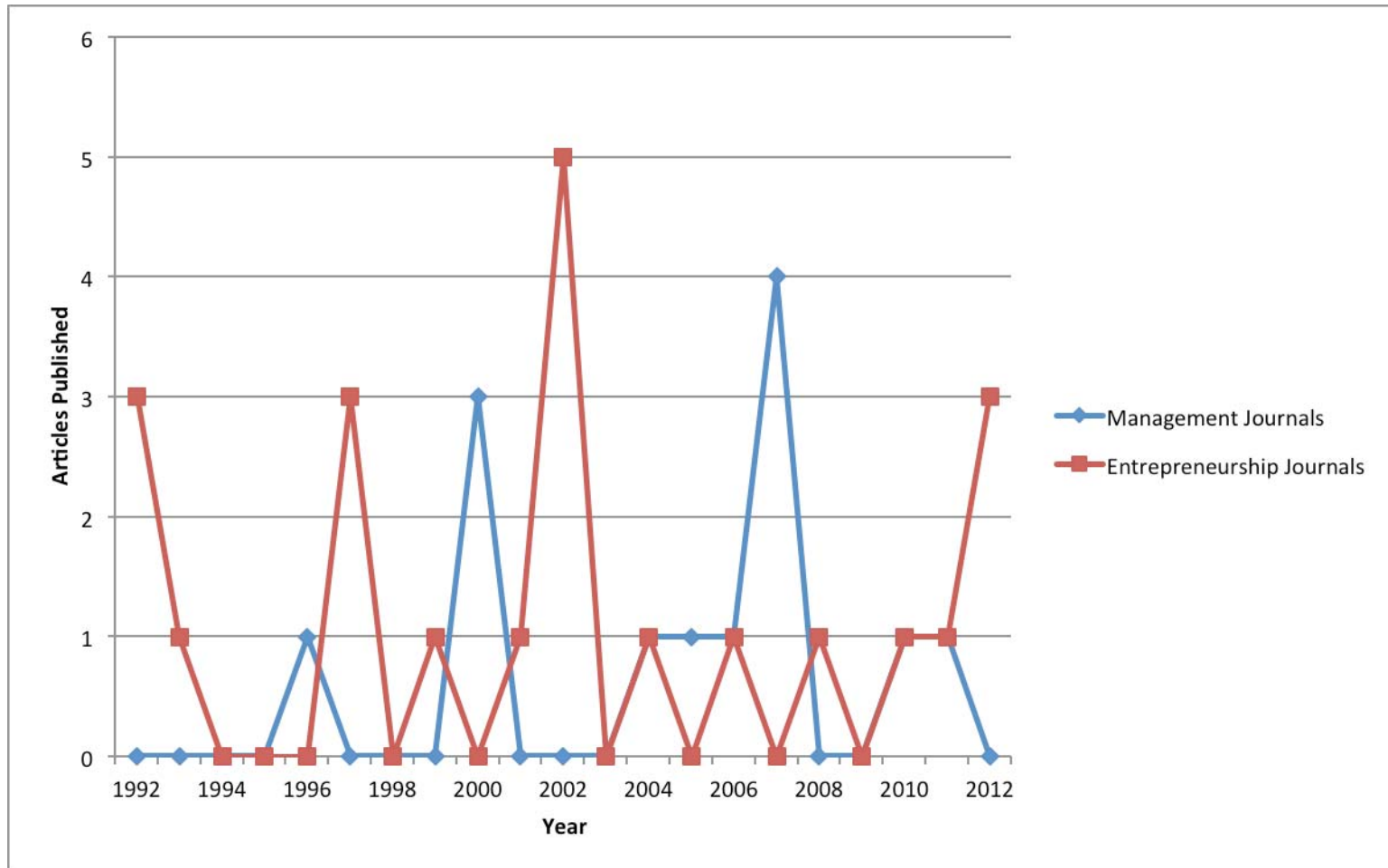


Figure 2. Annual Number of Articles Exploring Cultural Influences on Entrepreneurship.

National Culture and Entrepreneurship

Hofstede's (1984) book *Culture's Consequences: International Differences in Work-Related Values* is the seminal work on which the majority of studies exploring the effects of national culture on entrepreneurship is based. According to Google Scholar, this book has now been cited over 26,000 times, evidencing its significant impact on the field. In this book, Hofstede (1984) defines culture as "the collective programming of the mind which distinguishes the members of one human group from another" (p. 21). He argues that from a young age, individuals are programmed with certain beliefs and values through the family. Over time this programming is updated and reinforced through social structures such as schools, workplaces, and social organizations. Using data from a survey administered to IBM employees in 40 countries, Hofstede used factor analysis techniques to identify the following four dimensions of culture, which vary across nations:

1. *Power Distance*: level of acceptance of inequality in power and authority between people.
2. *Uncertainty Avoidance*: preference for certainty and discomfort associated with ambiguous situations.
3. *Individualism*: preference for acting in the interest of one's self rather than acting based on loyalty to a large group or collective.
4. *Masculinity*: emphasis on materialism and decisiveness as opposed to service and intuition.

Over three decades since Hofstede's seminal publication, the majority of research comparing entrepreneurship across cultures has made use of these measures. Of the studies I reviewed that draw on Hofstede's dimensions, a large portion focused on how differences in national culture shape individual's perceptions and motivations regarding entrepreneurship (McGrath et al., 1992; Holt, 1997; Mueller & Thomas,

2001). Although not all studies reported consistent results, for the most part, these studies indicate that culture does influence entrepreneurial beliefs and behaviors in line with what we would expect from Hofstede's formulation. In general, studies have theorized and found support for the idea that cultures high in individualism and masculinity and low in uncertainty avoidance and power distance provide more fertile ground for entrepreneurial activity (Hayton, George, & Zahra, 2002).

Table 1. Expected Relationships Between Dimensions of Culture and Entrepreneurship

Cultural Dimensions Facilitating Entrepreneurship	Cultural Dimensions Hindering Entrepreneurship
High Individualism	Low Power Distance
High Masculinity	Low Uncertainty Avoidance

Institutional Approaches

Despite the foundational notion of institutions providing the essential building blocks needed to create new organizations (Meyer & Rowan, 1977), until recently, few studies have examined entrepreneurship from an institutional perspective (Tolbert et al., 2010). As this review indicates, a number of recent studies exploring the relationship between culture and entrepreneurship draw on cultural conceptions from institutional theory. These institutional-oriented studies tend to fall into one of two camps—institutional logics and cultural entrepreneurship.

Institutional Logics

Although studies under the banner of institutional logics invoke different vocabulary, it is difficult to differentiate the concept of logics from the concept of

culture. In fact, these studies often define logics as “the broader *cultural beliefs* and rules that structure cognition and guide decision making in a field” (Lounsbury, 2007, p. 289; emphasis added).

While these studies often use logics and culture interchangeably, we may be able to draw some distinction between the terms with regard to the level at which they operate. As Scott, Ruef, Mendel, and Caronna note, “logics are only salient to the extent that they affect action within the field” (2000, p. 171). This definition is consistent with the ways in which other researchers have defined institutional logics as organizing principles, or guidelines specific to a given field (Friedland & Alford, 1991). Empirically, studies have followed this field-level approach by investigating the influence of institutional logics in contexts such as the field of banking (Marquis & Lounsbury, 2007), the field of health care (Scott et al., 2000), and the field of mutual funds (Lounsbury, 2007). For example, in studying the field of mutual funds, Lounsbury (2007) describes how mutual funds in New York were organized around a performance-based model, while those in Boston adopted a trustee model. These differences, he argues, stem from competing logics embedded in the field of money management associated with these two locations.

Another study, by Marquis and Lounsbury (2007), found that cultural differences across communities motivated entrepreneurs to resist the entrance of national banks by engaging in entrepreneurial efforts to start new community banking ventures. This study highlights the interaction between entrepreneurs and their environment. Differences in cultural beliefs motivated these entrepreneurs to create new ventures that reflected these beliefs, and in turn this act of entrepreneurship served as a form of resistance to push back against broader institutional changes occurring within the field. The interaction of entrepreneurs and their cultural

environment leads us to the next category of research under the institutional umbrella—cultural entrepreneurship.

Cultural Entrepreneurship

Under the cultural entrepreneurship approach, culture itself is seen as a tool that can be used by entrepreneurs in strategic ways (Swidler, 1986). Entrepreneurs use cultural tools such as rhetoric (Suddaby & Greenwood, 2005), storytelling (Lounsbury & Glynn, 2001), and symbols (Hargadon & Douglas, 2001) to frame new ventures or innovations as consistent with “established cultural accounts” (Meyer & Scott, 1983, p. 201). As Lounsbury and Glynn put it, “stories that are told by or about entrepreneurs define a new venture in ways that can lead to favorable interpretations of the wealth creating possibilities of the venture,” (2001, p. 546) and these favorable interpretations lead to legitimacy and facilitate the attainment of critical resources.

Along these lines, Hargadon and Douglas (2002) show how Edison used product design as a symbolic tool to facilitate cultural acceptance of his new electrical lighting system by linking it to existing technologies. By designing the electric lighting to resemble gas lighting, Edison invoked familiar symbols to ease the understanding and acceptance of this innovation. In a similar fashion, others have found that entrepreneurs who are more skillful in crafting symbols and stories consistent with cultural expectations are likely to obtain greater resources than their less-skilled competitors (Zott & Huy, 2007). As Zott and Huy conclude, “symbolic meaning is culturally specific and has to be subjectively interpreted as such by actors who are familiar with the cultural norms of a given social milieu” (2007, p. 73). Thus, these studies suggest that more than the actual technical attributes of an innovation or new venture, legitimacy and the subsequent attainment of resources is a product of entrepreneurs’ skillful construction of narratives that align with existing cultural

schemas and frame new activities as congruent with familiar social expectations (Hargadon & Douglas, 2002).

As my review of the literature discloses, the connection between culture and entrepreneurship has gained the most traction in the general management journals by scholars of the cultural entrepreneurship and institutional logics perspective. One explanation for the growing popularity of the cultural entrepreneurship approach compared to other cultural approaches, such as cross-country comparisons based on Hofstede's (1984) cultural dimensions, is that the cultural entrepreneurship perspective can be more clearly linked to established sociological perspectives such as institutional theory and population ecology.

Future Research Directions

Following this review, it is clear that there remain many unanswered questions and opportunities for research in this area. In order to truly make progress, one of the critical areas of advancement needed is in the methods and measures used to study the relationship between culture and entrepreneurship. In the following section, I identify four specific areas of focus for future work in this area: developing more innovative measures of culture, studying culture at more-local levels, adding increased methodological rigor, and investigating new types of entrepreneurial outcomes.

Moving Beyond Hofstede's Four Dimensions

To date, the vast majority of studies have been based on Hofstede's (1984) dimensions of national culture. In fact, as Figure 3 shows, 54 percent of the total studies included in my review were based on the dimensions of culture developed by Hofstede. It is easy to see the appeal of using these measures. They are well defined, easy to use, and over time a strong precedent for using them has emerged. Overall, the

contributions of Hofstede's dimensions have been significant in advancing the research on cultural difference among nations in fostering entrepreneurship. The proliferation of these dimensions bears a striking resemblance to the use among micro organizational behavior scholars of the "Big Five" personality traits. Like the Big Five, however, there are trade-offs to the parsimony and consistency offered by this limited set of dimensions. To begin with, the measures of both personality traits and cultural traits were not developed using a theory-driven approach. Rather, they represent statistical findings obtained through the use of factor analysis. There is no question that the development of such measures has been helpful in advancing research by providing scholars with a set of tools to conduct empirical analysis. The use of consistent measures across many studies also yields fruitful findings, as scholars can replicate studies and uncover new insights by building on a consistent set of measurements. Nevertheless, the absence of theoretically based dimensions is unsatisfying. In a sense, these dimensions are like hollow boxes that we can neatly stack together and build upon but must always remain cautious that these theoretically void shapes will be crushed by the weight of more-complex science.

In this sense, these four dimensions forgo the complex depth of culture in favor of a more parsimonious yet incomplete set of dimensions. Are we to believe that culture can fully be represented by four universal dimensions? If so, how do we know these are the right four? Over time, scholars have added a fifth dimension called "long-term orientation" (Bond, 1991) and more recently a sixth dimension of "indulgence" (Hofstede, Hofstede, & Minkov, 2010). These new refinements and the fact that Hofstede's original dimensions are based on data from surveys carried out in the 1960s give us additional reason to search for alternative measures. Over 50 years it is likely that the salience of these specific dimensions may have evolved, and even though institutions are durable and slow to change, considering the overarching

changes in world history over the past five decades, surely it is prudent to revisit the validity of these measures.

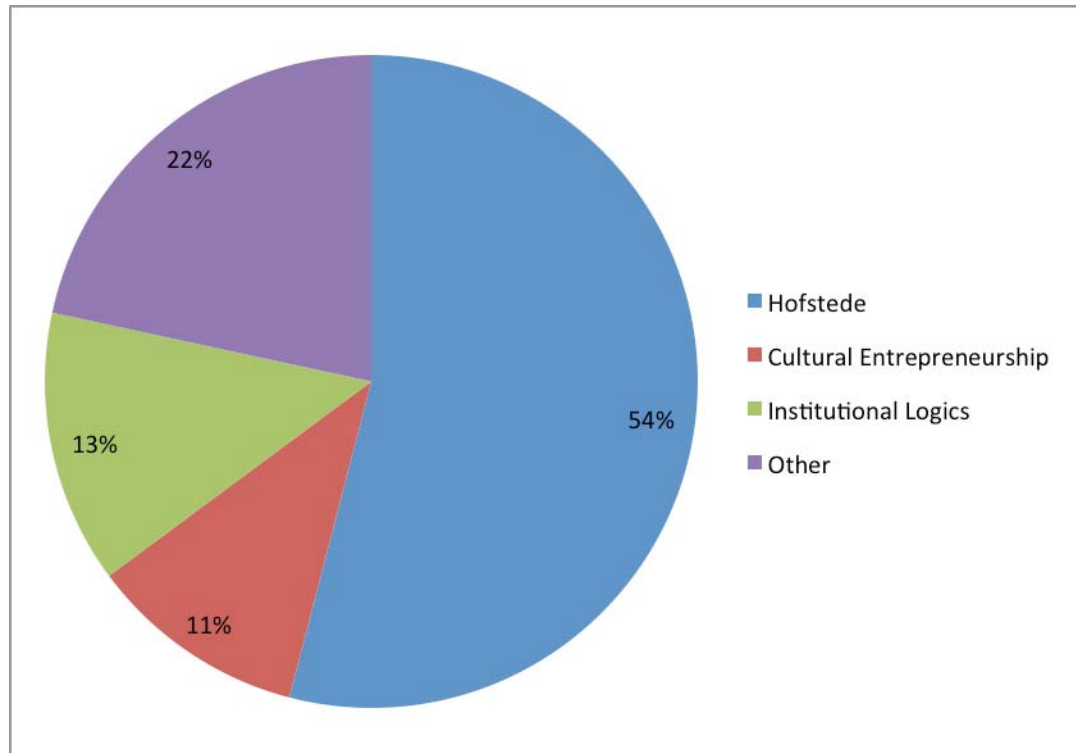


Figure 3. Theoretical Perspectives Adopted in Studies of Culture and Entrepreneurship.

Rather than trying to force the measurement of culture into a certain set of universal dimensions and incrementally working to refine and add to this list of dimensions, we should pursue a more theoretically driven approach. By beginning with theoretically based dimensions of culture and developing innovative ways to operationalize those constructs, we can investigate questions that have long been neglected because they do not fit within the four-dimension framework. One of these areas is in looking beyond differences in national culture to better understand cultural institutions that operate at more local levels such as regions, states, cities, and communities.

Moving Beyond National Culture

As Figure 4 indicates, 68 percent of the studies in this review examined culture at the national level. Nations do indeed represent one spatial boundary with which we may associate culture variance; however, we should not expect cultural consistencies to exist across all regions of a given nation. Even casual students of history can point to civil wars, cessations, riots, coups, and political divides motivated by great cultural differences within nations. During any political season, media outlets are quick to produce maps displaying a patchwork of different political ideologies representing the cultural divide across the nation. In addition to politics, we see cultural differences on other dimensions playing out at different levels from regions and states to local communities, cities, and towns. We often refer to the South as exemplifying a “culture of hospitality.” The state of Texas is said to have a “culture of football” (Bissinger, 2000). Some regions are characterized as having a “culture of poverty” (Lewis, 1966) and others, a “culture of entrepreneurship” (Saxenian, 1996).

Unfortunately, however, the measures of culture constructed by Hofstede are limited to the four dimensions measured at the national level for a sample of nations. This limitation in the measurement has stunted our understanding of how culture operates at more local levels. Hofstede himself acknowledges the potential for fragmented national cultures, saying “. . . differences in culture within nations, of course, do exist, but for most nations we can still distinguish some ways of thinking that most inhabitants share and that we can consider part of their national culture” (Hofstede, 1983, p. 77). Even if we agree with Hofstede’s assessment that culture does in fact operate at the national level, this does not lessen the importance of studying culture at more local levels of analysis. Furthermore, we need to better understand the interplay between cultures across different units of analysis. Currently, we have few answers for questions around the levels at which culture operates. Does local or

national culture have a stronger impact on entrepreneurship? How do differences across levels interact? How do they influence one another? These and other important questions can only be answered if we develop better measures to assess culture at more-local levels. Studies confined to the national level of analysis miss out on the rich dramatic details and complex social interactions that shape the daily life of individual actors.

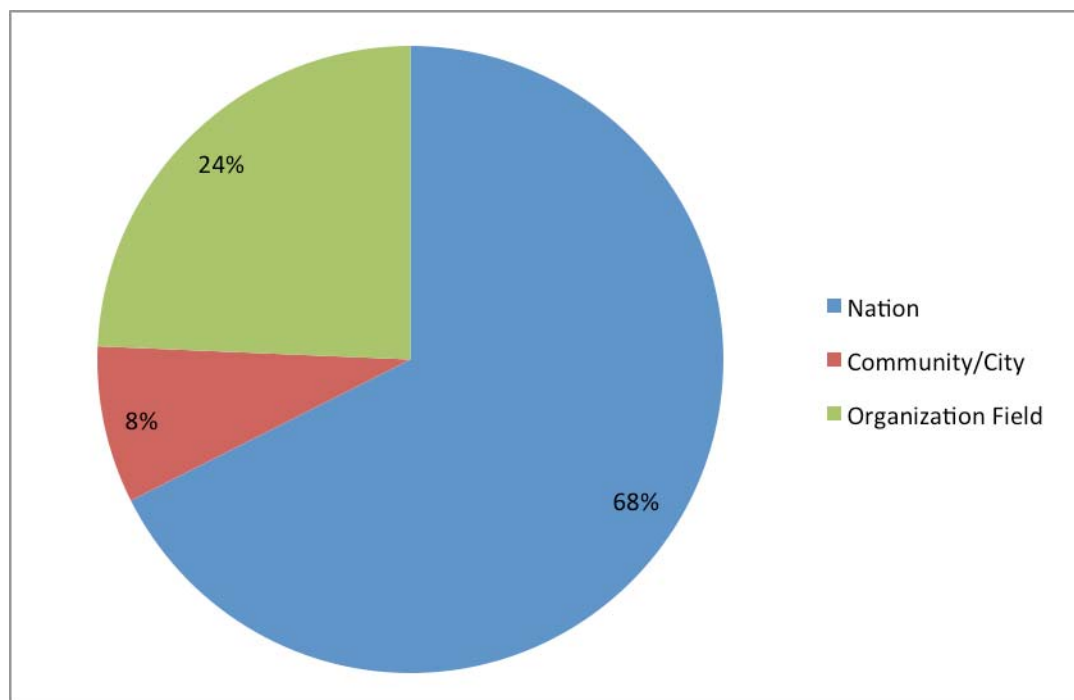


Figure 4. Level of Analysis Adopted in Studies of Culture and Entrepreneurship.

Following the view of culture as an institutionalized set of beliefs that shape decision making and are evidenced by symbols and artifacts embedded in the social environment, developing measures that capture these observable symbols may then provide one promising direction to expand the tools we use to measure and assess culture. In this vein, we need not be limited to singular institutionalized structures, symbols, and artifacts, but can look for combinations that map onto theoretically derived cultural dimensions. Take, for example, the concept of a regional culture of

entrepreneurship that represents the taken-for-granted belief of entrepreneurship as a possible career path and a set of schema and scripts that shape perceptions of entrepreneurial opportunities and provide templates for acting on those opportunities. Symbolic manifestations of these elements may be found in artifacts such as institutionalized structures and organizations that facilitate entrepreneurship (e.g., government programs, venture capital firms, specialized legal services), salient examples of prior entrepreneurial activity, and media accounts reflecting the social discourse around entrepreneurship. Through the use of methods such as factor analysis (similar to how Hofstede developed his four dimensions), we may be able to construct measures of culture that map more closely onto theoretically derived constructs of culture not previously studied. These measures could also allow us to move beyond national boundaries to investigate cultural elements operating at the regional, state, MSA, county, or local community level.

Moving Beyond Cross-Sectional Survey Data

More recent views of culture have shifted from an oversocialized normative view of culture to a more nuanced cognitive view in which different, even competing, cultural beliefs can exist and change over time (DiMaggio, 1997; Swidler, 1986). Despite this view, most studies have utilized cross-sectional survey techniques, which do not allow for the investigation of changing cultural beliefs. Studies that incorporate longitudinal designs over periods of change are needed to investigate the ways in which changes in culture impact entrepreneurial processes. Furthermore, an institutional approach seems particularly well suited to examine more fully the ways in which actors interact with the cultural environment. Analysis that considers the rich details of the social environment, including other key institutional forces such as norms and regulations, is needed to better understand the role of culture. Within the

institutional framework, the emerging work on cultural entrepreneurship provides an intriguing avenue to investigate how entrepreneurs interact with the cultural environment. One puzzle that remains unanswered is how culture can on one hand constrain the ability of actors to conceive of alternatives to existing arrangements (Gramsci, 1990) yet on the other hand serve as a tool that can be used by entrepreneurs to manipulate the social environment in strategic ways (Swidler, 1986; Lounsbury & Glynn, 2001; Greenwood & Suddaby, 2006). Future studies are needed to better understand how institutional entrepreneurs can use culture as a tool in promoting change. In doing so, however, scholars should pay heed to Aldrich's (2010) warnings against affording too much agency to institutional entrepreneurs as if they are super-human-like actors and rather consider more nuanced processes of change that involve sustained collective action and evolutionary dynamics.

Moving Beyond Motivations

One of the most surprising findings from my review of the literature on culture and entrepreneurship was the astonishingly few studies that actually studied entrepreneurship as measured by the number of new ventures started. After all, in its most basic form entrepreneurship is the act of starting a new business. Yet very few studies investigate this fundamental act. The majority of studies reviewed examine culture's influence on individual perceptions and motivations, asking such questions as, Who do entrepreneurs think they are, and what is the purpose of entrepreneurship in their eyes? (Dodd, 2002). Are entrepreneurial values in one country similar to those held by entrepreneurs in another country? (Holt, 1997). Is there a consistent set of values held by entrepreneurs that is different from non-entrepreneurs? (McGrath et al., 1992).

Moving beyond studies of entrepreneurial values and perceptions, many opportunities exist to study important organizational outcomes such as the founding of new ventures, the types of organizational forms and strategies adopted by new ventures, and the survival of new ventures. Along these lines, examining how culture shapes the mix of new ventures established in a community and how entrepreneurial cultures change over time and space are needed areas of study.

Conclusion

Given the prominence of the cultural-cognitive pillar in institutional theory and the growing study of institutions and entrepreneurship, the relationship between culture and entrepreneurship is an area ripe for research. It will only take “a little entrepreneurial energy” (Meyer & Rowan, 1977, p. 345) to better understand how the cultural building blocks fit together in shaping entrepreneurship. Institutional theorists seem particularly well equipped to push forward this line of inquiry by bringing a perspective that takes into account the rich and complex social environment that includes culture. By working to establish more innovative measures of culture, studying culture at more-local levels, adding methodological rigor, and investigating new types of entrepreneurial outcomes, institutionalists can play a prominent role in illuminating the ways in which culture shapes entrepreneurship.

In the following chapters, I build on these ideas through an analysis of entrepreneurship in the field of health care. Like other professional fields, health care represents a highly institutionalized context where activities (including entrepreneurship) are shaped by professional norms and taken-for-granted expectations. In the case of health care, the act of doctors engaging in certain types of business and entrepreneurial endeavors has often been at odds with the norms of the field. Through an examination of this complex social environment, I consider how

other institutions, including culture, influence the identification and exploitation of entrepreneurial opportunities in the field of health care.

CHAPTER 2: THE EMERGENCE OF AMBULATORY SURGERY CENTERS IN THE UNITED STATES

Introduction

During the modern era of American medicine, the hospital has served as the center of the health care universe. In particular, for most of the 20th century, nearly all surgical procedures were confined to the hospital setting and carried out on an inpatient basis (requiring overnight stay). Even for a minor surgical procedure such as a tonsillectomy, a patient would typically be required to check into the hospital the day prior to the procedure to receive pre-operation treatments and then spend several nights recovering in the hospital. However, in the years following World War II, a series of technological advances in anesthesia and surgical tools made it possible for many surgeries to be performed on an outpatient basis. The ability to perform outpatient surgeries represented a radical departure from the status quo. Most notably, outpatient surgery represented significant improvements in operating efficiency by decreasing the average operating time per surgery and by making it possible for patients to recover in the comfort of their own home, thereby eliminating costly overnight hospital stays.

Although the technologies and procedures used in outpatient surgery were developed in hospitals, entrepreneurial doctors eventually transported these practices outside of the hospital walls to generate an innovative new form of health care delivery in the form of their own freestanding surgical centers. These centers, known as ambulatory surgery centers (ASCs), represent a “landmark innovation in surgical care” (Detmer & Gelijns, 1994). Like most radical innovations, ASCs initially diffused slowly as they struggled to gain understanding and acceptance within the medical community. In the following sections, I outline the technological advances

that created the opportunity for ASCs, the challenges faced by early ASC entrepreneurs, and the actions taken by pioneering entrepreneurs in this field to garner acceptance for this innovative new model of health care delivery.

Opportunities Created by Technological Developments

With World War II looming large, and motivated by the desire to generate technologies that would aid in the war efforts, the U.S. government dramatically increased its funding and support for scientific research in the 1940s. President Roosevelt established the Office of Scientific Research and Development (OSRD) to promote and oversee the intensified research efforts. Other organizations were also formed with specific authority to oversee medical and defense research, such as the Committee on Medical Research (CMR) and the National Defense Research Council (NDRC). Although the war served as a primary stimulus in pushing forward the research agenda in the United States, the resulting scientific developments led to many useful innovations with applications beyond the battlefield. Adding to the growing government support of research, several private organizations, like the American Cancer Society and the March of Dimes, became major contributors to medical research efforts (Starr, 1982). During the 1940s medical research expenditures in the United States are estimated to have increased from \$18 million in 1941 to \$115 million in 1946 and ultimately up to \$181 million by 1951 (Endicott & Allen, 1953).

With this increase in support for research came dramatic advances in areas such as mechanical engineering, lasers, and fiber optics. Taken together, innovations across these scientific domains proved to be critical to the development of new types of surgical tools that could be used for minimally invasive procedures—where physicians use scoping devices guided by miniature cameras to perform surgeries through tiny incisions (Gelijns & Rosenberg, 1995).

Around the same time, advances in local anesthesia provided an essential complement to these new surgical technologies. In contrast to general anesthesia, which is a form of medically induced coma that prevents pain and reflexes during surgical procedures, local anesthesia can be circumscribed to specific parts of the body in order to prevent pain yet allow the patient to remain alert and capable of returning home shortly after surgery. Although minimally invasive surgeries had been attempted previously, the inadequacy of surgical tools severely limited the widespread use of such procedures. Thus, the advances in anesthesia and surgical technologies paved the way for the expanded use of minimally invasive surgeries and opened the door for the development of outpatient surgery practices.

Armed with these new tools, doctors began to explore the possibilities of outpatient surgery, and in 1959, doctors Webb and Graves published an influential article documenting 10 years of experience in operating a hospital-based outpatient surgery program in Vancouver, British Columbia. Motivated by a shortage in local hospital beds and encouraged by the advances in surgical technologies, these two anesthesiologists pioneered the practice of outpatient surgery. By the time of their published report in 1959, these doctors had successfully performed thousands of surgeries using outpatient techniques and estimated that as a result of the efficiencies gained by implementing these procedures, an additional 1,200 patients were able to receive needed medical treatment each year (Webb & Graves, 1959). Around this same time, a few major hospitals in the United States, such as the UCLA Center for the Health Sciences and the George Washington University Hospital, opened outpatient surgery centers, and by the end of the 1960s, several other hospitals across the country had adopted similar practices.

To illustrate the dramatic differences between minimally invasive techniques and traditional surgery, consider the common procedure of cholecystectomy, or the

surgical removal of the gallbladder. Using traditional inpatient methods, this procedure involves sedating the patient with general anesthesia and then making a large 4- to 8-inch incision along the patient's upper abdomen. Entering through this large opening, surgeons then remove the gallbladder and stitch up the incision. Following surgery, patients typically spend about a week in the hospital for postoperative care and are expected to fully recover in about six weeks. In contrast, this same procedure can be performed using minimally invasive techniques that involve using only local anesthesia and making a few tiny incisions (less than 1 cm each) through which a lighted scope, miniature camera, and surgical instruments are inserted. The surgeon then performs the procedure by using a video monitor to help guide the tools through the body to remove the gallbladder through one of the incisions. This minimally invasive laparoscopic procedure can be carried out in less than one hour, after which the patient is discharged and able to return home the same day. The full recovery time for the outpatient procedure is typically only 7 to 10 days. Patients of minimally invasive techniques experience less scarring, shorter recovery times, and less risk of infection.

Table 2. Comparison of Inpatient versus Outpatient Gallbladder Surgery

Open Cholecystectomy (inpatient)	Laparoscopic Cholecystectomy (outpatient)
Large 4- to 8-inch surgical incision	3–4 small incisions of less than 1 cm each
General anesthesia	Local anesthesia
2 hours in surgery	1 hour in surgery
Up to 1 week recovery in hospital	Same day discharge
Return to normal activities in 4–6 weeks	Return to normal activity in 7–10 days

As the cholecystectomy example illustrates, the advent of outpatient surgery provided many advantages over inpatient surgery including less medication, more efficient use of physician and nurse time, and lower costs because it allowed patients to recover at home rather than in the hospital. However, despite a growing awareness of the efficiency and cost-saving benefits of outpatient surgery, widespread acceptance and adoption of these procedures in the broader medical community took time. Describing the medical communities' perspective on these procedures, Cohen and Dillon remarked:

The concept of outpatient general anesthesia is *at variance with much established custom*. Yet, we believe that such practice is entirely safe, indeed safer than many inpatient practices if it is undertaken seriously and with rigid controls by the surgeon and the anesthesiologist. (1966, p. 100; emphasis added)

It would take time for the greater medical community to be persuaded to this line of thinking, and initial growth of outpatient surgery programs was limited to a few large research hospitals. Nevertheless, over time acceptance grew as doctors continued to refine the practice and publish results demonstrating not only the efficiency of outpatient surgery but also the quality and safety. For example, UCLA doctors Cohen and Dillon (1966) were among those who heralded the convenience and efficiency of outpatient surgery. Comparing the total cost of several surgical procedures, these doctors reported patient savings of 30 to 45 percent for outpatient procedures and estimated that during the two years of their study (1963–64) the efficiency gains achieved by utilizing outpatient technique saved approximately 1,000 hospital days (Cohen & Dillon, 1966). In addition to these economic benefits, Cohen and Dillon concluded that the practice of outpatient surgery “is entirely safe, *indeed safer than many inpatient practices*” and that it has “provided more effective use of hospital beds and has increased the hospital’s public service” (1966, p. 100; emphasis added).

Physician Entrepreneurs

As the practice of outpatient surgery began to gain hold, a few entrepreneurial physicians identified the opportunity to create a novel kind of health care organization that utilized outpatient procedures in privately owned surgical centers. In 1969 and 1970, doctor Charles Hill of Providence, Rhode Island, and doctors Reed and Ford of Phoenix, Arizona, established the first of these independent surgical facilities, which came to be known as ambulatory surgery centers (ASCs). Although Dr. Hill's center did not survive long, the "Surgicenter" established by Reed and Ford is still in existence today, over four decades after it was founded. These new surgery centers represented a novel combination of outpatient surgical techniques with an innovative business model that replaced the hospital with freestanding centers owned and operated by physicians.

For physicians, establishing a surgery center offers many benefits. Most notably, when physicians own an ASC, they capture profits not only from the surgeries they perform but also from the facility usage fees that would otherwise go to the hospital. In this way ASC owners profit even from the work of other physicians who perform surgeries in their facilities. Furthermore, surgery centers provide added convenience by enabling physicians to have more control over scheduling. This is important to physicians because scheduling time in hospital operating rooms can be inconvenient and inefficient, as it is common for surgeries to be delayed or cancelled if an emergency procedure must be scheduled, or if a previously scheduled surgery takes longer than expected. Not only does control over scheduling provide added convenience to physicians and patients, but it further increases revenue potential by enabling physicians to perform more surgeries each day (Cloud, Reed, Ford, Linkner, Trump, & Dorman, 1972).

Economic Climate

The growing acceptance of outpatient surgeries dovetailed with an emerging health care “crisis” in the 1970s (Starr, 1982). In 1965, President Lyndon B. Johnson signed into law the Medicare and Medicaid programs, which served as social insurance programs for elderly and low-income people. The influx of an additional 19 million Americans now covered under Medicare, among other factors, contributed to the skyrocketing level of health care expenditures. From 1960 to 1970 national health expenditures increased from \$27 billion to \$74 billion, representing an increase of 5.3% of GDP to 7.4% of GDP (Levit et al., 1996). As costs continued to rise, so did concern among politicians, doctors, insurance providers, and the general public. President Nixon went so far as to call the state of affairs a “massive crisis” and warned that “unless action is taken, both administratively and legislatively, to meet that crisis within the next 2 to 3 years, we will have a breakdown in our medical care system which could have consequences affecting millions of people throughout the country” (Weekly Compilation of Presidential Documents, vol. 5, p. 967).

In order to address this crisis, health care providers, government agencies, and insurers sought out innovative cost-saving approaches. After reviewing the state of the industry, one analyst concluded that “cost-driven and patient-oriented innovation is the only thing that will save our health care system from economic self-destruction” (Stromberg & Styles, 1984, p. 26). In light of these dire economic circumstances, ASCs represented an innovative solution with the potential to save money by carrying out surgeries in more cost-effective ways and stripping out overhead associated with the hospital. Although some in the field were receptive to potential cost savings associated with ASCs, other key actors remained skeptical. Most notably, ASC entrepreneurs faced fierce resistance from incumbent hospitals. From the beginning, hospitals were concerned about the competitive threat posed by ASCs. In particular,

hospitals feared that ASCs would cherry-pick the easiest, most profitable, and least risky cases. This is a serious concern not only for hospitals but for the community in general. Hospitals represent a community good. They provide needed services, some of which are not profitable. For example, burn-treatment centers and neonatal units typically represent net losses for hospitals, and so in order to continue to provide these important services to the community, hospitals rely on spreading the profits from more-profitable services to cover the costs of unprofitable services. However, if those profitable services are siphoned off by competitors such as ASCs, the result could mean hospital failure, or a loss of key services needed in the local community. When Bernard Kershner, an early ASC pioneer, was trying to establish the first ASC in Connecticut, he experienced significant opposition from both hospitals and community leaders. Describing these conflicts he recalled, “Every hospital in the state sent a representative to testify against our project” (Roark, 2004).

Seeking Legitimacy Through Collective Action

Despite the need to address the growing health care cost crisis and the compelling incentives for physicians to start their own ASCs, very few physicians started ASCs in the early years. By 1975, there were only between 20 and 55 ambulatory surgery centers across the nation (O’Donovan, 1976, ch. 9; Marks, Greenlick, Hurtado, Johnson, & Henderson, 1980). As is common in nascent industries, the slow growth of ASCs can be attributed at least in part to an initial lack of cognitive and sociopolitical legitimacy (Aldrich & Fiol, 1994). This is to say that early on, the very model of performing outpatient surgeries in physician-owned centers outside of the hospital was not well understood by key constituents such as patients, doctors, insurance providers, and government agencies. In order to attract

patient referrals and receive reimbursements, ASC entrepreneurs bore the burden of educating these key constituents.

Historical documents and accounts point to the fact that the pioneering ASC founders were acutely aware of the need to educate others about their innovative new model of health care. These pioneers engaged in several types of collective action aimed at raising awareness and establishing the legitimacy of this new organizational form. One strategy adopted by Reed and Ford was to open up their center and invite others to tour their facilities. During their first year of operations, Reed and Ford hosted over 400 visitors to their center (Reed & Kershner, 1993). Doctors, insurance providers, and policy makers from across the country came to learn about this new concept, and many went on to publish articles, or reports documenting their experience. Reed and Ford also partnered with several doctors from different surgical specialties across the country to co-author articles explaining the concept of ambulatory surgery centers. For example, one article published in the *Journal of Pediatric Surgery* billed the surgical center as a “fresh concept” in outpatient surgery and highlighted the benefits, including cost savings and efficiency gains, associated with ASCs (Cloud et al., 1972). This same article even included a copy of the surgery center floor plan, along with a detailed description walking through the process of how surgeries are conducted at the center. Similar articles became a regular occurrence in media outlets such as *Medical World News*, *Medical Tribune*, *Medical Economics*, *Arizona Medicine*, and *Physician Management* (Reed & Kershner, 1993).

In 1974, early ASC entrepreneurs came together to formalize and coordinate their collective efforts through the establishment of the first industry association, which they named the Society for the Advancement of Freestanding Ambulatory Surgery. The goal of this industry association was to “. . . further the concept and encourage membership by those interested in developing freestanding ambulatory

surgery centers” (Roark, 2004), and during the early years, the association’s primary objective was to raise awareness and support for ASCs. Association founding member Bernard Kershner describes this time, saying, “From the standpoint of creating an awareness, we were not lobbying so much as we were educating. We had no lobbyists—we *were* the lobbyists” (Roark, 2004). Meetings of the association involved providing information on how to start an ASC, with specific guidance on navigating the political and medical aspects (Reed & Kershner, 1993).

In addition to activities aimed at generating awareness and educating important constituents, the association also engaged in efforts to secure favorable regulatory policies. With limited resources, industry association member lobbyists paid their own expenses to travel to Washington to attend meetings and lobby on behalf of the nascent industry (Reed & Kershner, 1993). One of the top objectives of ASC lobbyists was to secure adequate Medicare reimbursement for services performed in ASCs. In this regard, the industry scored a major victory when the Omnibus Reconciliation Act of 1980 authorized Medicare reimbursement of selected surgical procedures in outpatient settings. These changes were enacted in 1982, and without them, it is unlikely that the industry would have survived. Among the other actions of the industry association, one key contribution was creation of the Accreditation Association for Ambulatory Health Care (AAAHC). Established in 1979 in conjunction with other types of ambulatory care providers, the AAAHC was created to

Encourage and assist ambulatory health care organizations to provide the highest achievable level of care for recipients in the most efficient and economically sound manner. The AAAHC accomplishes this by the operation of a peer-based assessment, consultation, education and accreditation program developed a set of industry standards along with an accreditation system. (<http://aaahc.org>, 2012, “History”)

One key dimension of the AAAHC is that it was founded in conjunction with six other ambulatory health care associations. Joining the Federated Ambulatory

Surgery Association in this partnership were the American College Health Association, the Group Health Association of American, the Medical Group Management Association, the National Association of Community Health Centers, and the American Group Practice Association (<http://aha.org>). Whether this partnership was strategically contrived by the leaders of the Federated Ambulatory Surgery Association is unclear. What is clear is that the level of power achieved through this collective partnership far exceeded the power and resources that any one of these fledgling associations could have mustered on its own. Prior to the creation of this organization, ambulatory surgical centers were excluded from participation in the leading health care accreditation program administered by the Joint Commission. Therefore, this new organization played a key role in establishing early industry standards and in building a greater collective identity for the category of ambulatory services in general. Through this broader coalition of smaller ambulatory health care providers, ASCs were able to link their novel practices to similar types of ambulatory services that had already started to gain social acceptance in the health care community, like kidney dialysis centers and urgent care facilities.

Indeed, the emergence and growth of ambulatory surgery centers in the United States is a story of entrepreneurship. Not only did early entrepreneurs engage in collective action to carry out the institutional work to help establish the legitimacy of this new organizational form, but they also served as primary investors in supporting the growth of the industry. A report published in 1999 by the Office of the Inspector General acknowledged the role of physicians as key sources of financial capital as one of the key factors supporting the growth of the industry. Throughout the history of the industry, physician entrepreneurs provided the needed financial and human capital to fuel the spread of ASCs.

Although the spread of ASCs remained slow during the 1970s, two key events paved the way for more rapid growth in the 1980s. Most notable was the Omnibus Reconciliation Act of 1980, which mandated Medicare to begin reimbursement of procedures performed in ASCs. Around the same time, in 1981, the American College of Surgeons issued a statement formally endorsing the concept of ambulatory surgery (Henderson, 1991). Yet, as Figure 5 illustrates, physician establishment of ASCs was still limited through the 1980s, and by 1990 just over 1,000 ASCs were in operation in the United States. Over the next 18 years, however, the industry blossomed, and by 2008 the total number of surgery centers exceeded 5,000. It is interesting to note, however, that significant variation remains in terms of *where* doctors have been more active in founding surgery centers. Figure 6 shows the geographic distribution of ASCs in the United States and reveals surprising patterns. For example, by 2008 only 91 ASCs were in operation in New York, compared with 106 in Missouri—a state with less than one third the population of New York.

What accounts for this regional variation? In addition to regulatory policies and economic conditions, I expect that institutional pressures operating across multiple spheres of social influence may determine where doctors are most likely to exploit this opportunity to start their own surgery center. In the next chapter, I address these question by further expounding on how the professional norms in the field of medicine have often been at odds with the practice of physician involvement in economic activities (such as physicians starting their own surgery center). I then theorize about how doctors' exposure to different institutional forces in other spheres of their social life may influence their propensity to identify and exploit entrepreneurial opportunities.

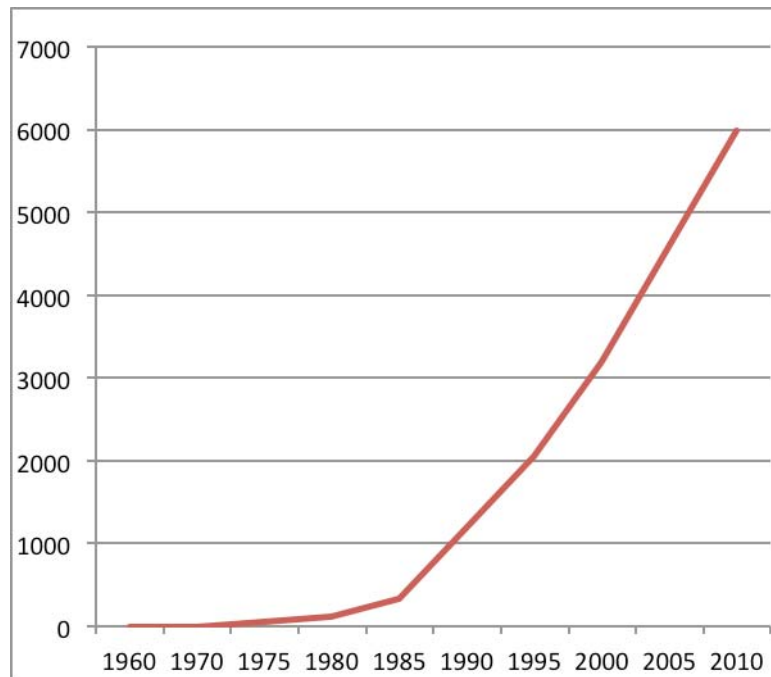


Figure 5. Number of Ambulatory Surgery Centers in Operation in the United States from 1970–2008

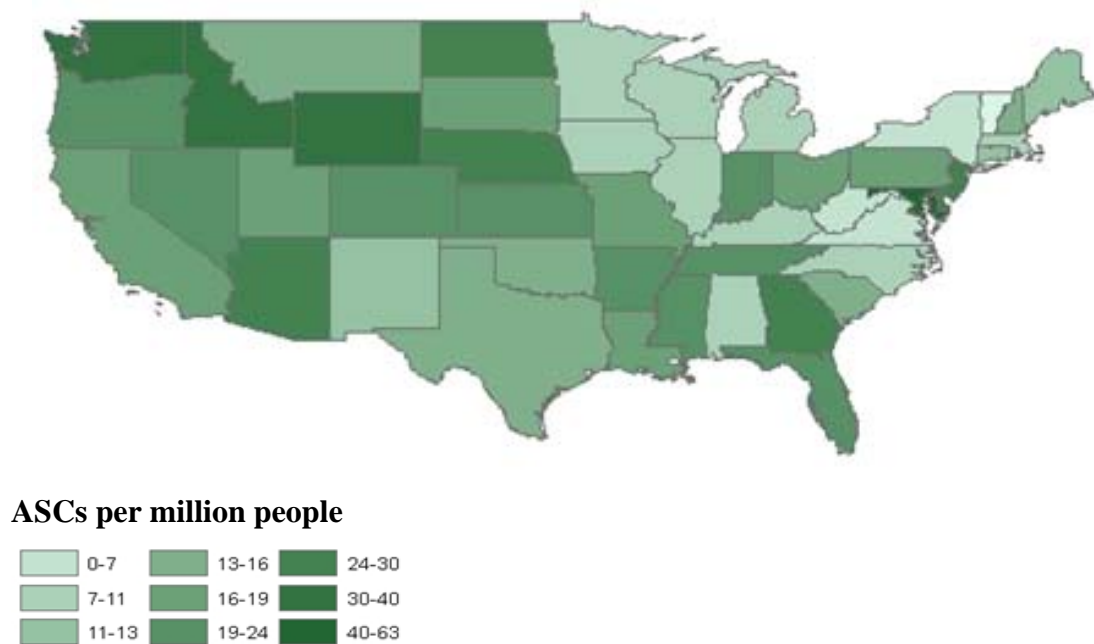


Figure 6. Geographic Distribution of Ambulatory Surgery Centers in the United States as of 2008.

CHAPTER 3: INSTITUTIONAL INFLUENCES ON ENTREPRENEURIAL ACTIVITY IN THE FIELD OF HEALTH CARE

Introduction

An emerging stream of entrepreneurship research suggests that the institutional environment, or collective set of understandings and expectations specifying what actions and organizational forms are appropriate (Zucker, 1983), serves as a critical factor influencing new venture creation (e.g., Aldrich & Fiol, 1994; Sine, Haveman, & Tolbert, 2005; Weber, Heinze, & DeSoucey, 2008; Sine & David, 2010). Although this research is only beginning to explicitly uncover the links between institutions and entrepreneurship¹ (Tolbert et al., 2010), this perspective emphasizes the importance of social context, discounting attempts to generalize phenomena to universal social laws of organizational structures and processes (Scott, 2008a), and provides a contextual perspective often neglected in studies of entrepreneurship focused on individual traits (e.g., Welsh & Young, 1982; Begley & Boyd, 1987) or economic rationale (e.g., Venkataraman, 1997).

Despite the growing interest in the connection between institutions and entrepreneurship, institutional theory has traditionally centered on studies of single dominant institutions influencing the behavior of mature organizations in established industries (Lounsbury, 2007). This emphasis overlooks the role institutions play in shaping the creation of novel organizations and the emergence of new industries. Furthermore, actors do not exist within silos of singular institutional pressure but are subject to dynamic institutional environments where competing beliefs, values, and

¹ Although entrepreneurship is defined in many ways, I incorporate a broad definition of entrepreneurship as the act of creating a new venture. In this dissertation, I focus particularly on instances when engaging in starting certain types of new ventures may be viewed as inappropriate from the perspective of some professional norms or social expectations.

myths at times provide contradictory prescriptions of appropriate behavior (Friedland & Alford, 1991; Kraatz & Block, 2008; Thornton & Ocasio, 2008). These complex dynamics are especially salient in highly institutionalized contexts, such as professional fields where strong normative prescriptions and taken-for-granted assumptions of acceptable behavior exist. In such settings, actors may be simultaneously influenced by the norms and beliefs associated with different dimensions of their social life, such as that of their profession, their area of specialty, and their place of occupation, not to mention forces outside of their work environment such as those associated with their religion, or ethnic culture.

Furthermore, each sphere of social influence is not composed of homogenous actors adhering to consistent beliefs and values. Social environments are often fragmented, with different groups of actors promoting diverging beliefs and expectations about appropriate behaviors and activities. Such fragmentation is readily apparent in the field of health care, where different professional associations, government agencies, and accreditation bodies advocate competing beliefs regarding how health care should be administered. These kinds of competing beliefs are ever present throughout the field of health care, ranging from conflicts over conventional versus alternative medicine (Park, 2008) to disagreement over appropriate methods of care in the mental health and drug-abuse treatment sector (D'Aunno, Sutton, & Price, 1991). Institutional fragmentation is not unique to the field of health care, and researchers have acknowledged the influence of pluralistic institutional demands on organizations in other contexts, including higher education (Cohen & March, 1986; Kraatz & Zajac, 1996), banking (Marquis & Lounsbury, 2007), mutual funds (Lounsbury, 2007), art museums (DiMaggio, 1991), and professional services firms (Greenwood & Suddaby, 2006).

Despite this attention to competing institutions, few studies have examined how such pluralistic demands influence whether and when individuals become entrepreneurs. A more complete understanding of the ways in which complex social environments, including those with competing institutional forces, shape entrepreneurial activity is an important extension to dominant theories of entrepreneurship that focus primarily on economic rationales (e.g., Venkataraman, 1997) or individual traits and characteristics (e.g., McClelland, 1961; Khilstrom & Laffont, 1979; Aldrich & Wiedenmayer, 1993). Because entrepreneurship is fundamentally a decision-making process where actors identify, evaluate, and decide whether to exploit certain opportunities, it is critical to understand how the social environment shapes entrepreneurs' perceptions of economic opportunities.

In this section, I focus on the ways in which institutional forces associated with a given *geographic region*, *organizational field*, or *profession* operate to shape the propensity for doctors to engage in entrepreneurial activity. More specifically, I consider how forces that may constrain entrepreneurship in one social sphere may be countered by forces that enable entrepreneurship in other social spheres. I explore these issues through an analysis of physician-founded ambulatory surgery centers (ASCs). ASCs are health care facilities where surgeries are performed on an outpatient basis. These facilities are independent from the hospital and typically owned and operated by physician entrepreneurs. Despite the economic incentives for physicians to start their own surgery centers, professional norms within the modern medical profession have long frowned upon the act of physicians engaging in these kinds of entrepreneurial activities that go beyond simply owning a private practice. Although these professional norms serve as a constraint to physician entrepreneurship, I argue that they can be counteracted by competing institutions in other spheres of social influence that are more supportive of this form of entrepreneurial activity.

Building on the context outlined in the first chapter, I briefly review the source of professional norms opposed to this type of physician entrepreneurship. I then develop theory to explain how different institutional pressures operating across multiple social spheres can counteract the constraining influence of professional norms, and then I propose a series of hypotheses that predict the conditions under which physicians will be more likely to engage in entrepreneurial activity by exploiting what may be viewed as a profitable, yet socially contested, opportunity (Croidieu & Monin, 2010). I test these claims using a longitudinal data set covering all ambulatory surgery centers founded in the United States from 1990 to 2008.

Professional Norms of Medicine and Entrepreneurship

Throughout much of early American history, doctors could be thought of as highly entrepreneurial. In fact, during the 19th century doctors commonly became entrepreneurs by creating and marketing their own tonics, potions, and cures (Starr, 1982). However, the ability of the public to differentiate between genuine doctors and “quacks” challenged the legitimacy and standing of the profession as a whole. During this time, becoming a doctor was not an esteemed career path, and if a young man chose to become a doctor, “the feeling among the majority of friends is that he ha[d] thrown himself away” (Starr, 1982, p. 83). In order to elevate the standing of this occupation and establish closure around legitimate practitioners of medicine, doctors engaged in collective action through mobilizing under the banner of the American Medical Association (AMA). Since its founding in 1847, the AMA has been the primary professional association for doctors. Part of its early mission was to mobilize resources and engage in efforts to professionalize the practice of medicine. These efforts included downplaying the logics of business and entrepreneurship that had been pervasive throughout the 1800s and emphasizing the values of patient care based

on scientifically sound methods. Central to these professionalization efforts, the AMA worked to establish higher educational requirements, professional licensure, ethical guidelines, and standards for practice (Starr, 1982). Through this work, the professionalization of medicine led to a stronger emphasis on separating the logics of profit from patient care, and certain business practices were explicitly condemned. Early on, the AMA code of ethics introduced language unequivocally denouncing advertising, saying that it is “derogatory to the dignity of the profession . . . to resort to public advertisements” (AMA, 1847, p. 98) and that physicians “should not solicit patients” (AMA, 1957, p. 2). Furthermore, profiting from business activities other than the direct care of patients was heavily frowned upon. In fact, from the 1950s until the 1980s, the AMA code ethics stated that “a physician should limit the source of his professional income to medical services *actually rendered by him*, or under his supervision, to his patients” (AMA, 1957; p. 3). While this pronouncement allowed for physicians to continue operating as self-employed practitioners, it limited them from pursuing other entrepreneurial endeavors such as owning health care facilities (such as ASCs) where they could generate passive income from services performed by other physicians.

This type of prohibitive language drew the attention of the Federal Trade Commission (FTC), which viewed such professional restrictions as contrary to the free-market principles outlined in the Sherman Antitrust Act. As a result of pressure from the FTC and two major Supreme Court cases (*Goldfarb v Virginia State Bar*, 1975; *American Medical Association v the Federal Trade Commission*, 1982), the AMA was forced to remove any language from its code of ethics that could be construed as restraining free trade. However, despite the removal of explicit language denouncing entrepreneurial behavior, the norms against physician entrepreneurship have been sustained and reinforced by members of the profession. The persistence of

these norms is evidenced by statements by prominent members of the medical community, such as Dr. Arnold Relman, who served for eleven years as the editor of the prestigious *New England Journal of Medicine*. During and after his tenure as editor, Relman has been an outspoken critic of physician entrepreneurship, publishing numerous articles, books, and opinion pieces on the subject. Statements such as the following are characteristic of Dr. Relman's continued denouncement of physician entrepreneurship.

As a physician, I believe the medical profession's first responsibility is to serve as a trusted agent and adviser for patients. Physicians should be adequately compensated for their time and effort, *but not as businessmen. Unfortunately, too many physicians nowadays are succumbing to the lure of easy profits, and are becoming entrepreneurs.* (Relman, 1986, p. 209; emphasis added)

One recent medical school graduate I interviewed described how, upon entering medical school, he had intended to become an entrepreneur, but after going through the socialization process of medical school, he felt that entrepreneurship was no longer an option. Describing these social pressures, he said:

I think . . . there is very much an unspoken negative connotation if one is pursuing non-clinical interests. Patient care is constantly emphasized. Anything that compromises this is heavily frowned upon. Anything. I mean it's almost impossible to get time off to go to a loved one's funeral. If not taking care of patients, we are expected to be writing book chapters on surgical diseases or publishing papers related to basic science or clinical medicine.

As these examples illustrate, even though many of the formal pronouncements against engaging in entrepreneurship have been lifted, there remains tension in the medical profession regarding the appropriateness of doctors engaging in certain types of entrepreneurial ventures.

Institutional Influences on New Venture Creation

Regional Culture of Entrepreneurship

Institutional theorists have stressed the importance of cultural-cognitive forces in shaping organizational behavior. Indeed, it is the cultural dimension that sets neo-institutional theory apart from other institutional approaches from fields like economics, or political science (Scott, 2008a). Institutional theorists view culture as a set of shared understandings that constitute social reality (Berger & Luckman, 1967), taken-for-granted assumptions about how things should be done, and shared templates and scripts for actions (Scott, 2008a). Along these lines, similar conceptions of culture have been proposed by theorists, who have suggested that culture is the “software of the mind” that provides patterns of thinking, feeling, and acting (Hofstede, 1991, p. 4). In this way, these cultural-cognitive elements provide a framework that shapes how entrepreneurs interpret opportunities.

Others argue the culture can serve as a “tool kit” that provides skills actors can draw from to develop “strategies of action” (Swidler, 1986). A few recent studies (e.g., Lounsbury & Glynn, 2001; Lounsbury, 2007; Zott & Huy, 2007) draw on this notion to illustrate how institutional entrepreneurs can use cultural tools such as rhetoric, storytelling, and the display of artifacts and symbols to garner acceptance for new innovations and organizational forms.

Interest in linking culture to the variance in economic outcomes observed across communities is not new. Weber (1958) pointed to these cultural factors and their influence on local economic activity, by advancing the idea that there is a “spirit of Capitalism” that drives economic behavior and that this spirit is brought about by socio-cultural factors such as religious ideology. Using a similar phrase, Kirzner (1984, p. 56) discussed the “entrepreneurial spirit” as a measure of the positive prevailing local attitudes and cultural elements that favor entrepreneurship. Despite

these long-standing beliefs that local socio-cultural dimensions influence economic behavior, as the review in chapter 1 illustrates, organizational studies have often overlooked these types of cultural differences across geographic locations.

Recently scholars have adopted a cognitive view of culture that allows for variation in how actors respond to cultural pressures (DiMaggio, 1997). This represents a shift away from prior theorizing rooted in the Parsonian view of culture as a pervasive set of norms that exert equal pressures on all actors in a given social sphere. This cognitive perspective views culture not as overarching norms but as a system of widely shared beliefs and taken-for-granted notions of acceptable goals and means to achieve those goals. Although these belief systems are embedded in the local cultural fabric, newer conceptualizations of culture allow for fragmentation to exist and for individuals to experience culture in different ways. If we view culture as shared understandings that shape how actors interpret information and make decisions, we can imagine different types of culture associated with different dimensions of social life. With regard to economic life, we may even say that there is a *culture of entrepreneurship*. As Berger puts it, “. . . in certain circumstances, entrepreneurship produces its own culture” (1991, p. vii).

This idea of a culture of entrepreneurship is vividly illustrated in Saxenian’s (1996) comparison of the high-technology (hi-tech) industry in Silicon Valley and Boston. Even after considering differences in industry infrastructure, Saxenian explains that variations in regional culture led to vastly different founding rates of high-tech companies in these two locations. One entrepreneur interviewed in her study described the cultural differences:

In Boston, if I said I was starting a company, people would look at me and say: “Are you sure you want to take the risk? You’re so well established. Why would you give up a good job as a vice president at a big company?” In California, I became a folk hero when I decided to start a company. It wasn’t just my colleagues. My insurance man, my water deliverer—everyone was

excited. *It's a different culture out here.* (Saxenian, 1996, p. 63; emphasis added)

As this quote illustrates, the entrepreneurial culture in Silicon Valley supported risk-taking, challenging the status quo, and the perception of engaging in entrepreneurship not only as an acceptable career option but even as a heroic endeavor. Another entrepreneur interviewed by Saxenian highlighted the cultural support for risk-taking and acceptance of failure. He recalled, “In Silicon Valley, failure is an accepted way of life, unlike the East where failure is viewed as a death sentence . . . If you bomb in Palo Alto, you blame the advertising agency and start another company” (Saxenian, 1996, p. 68).

These examples point to the social interpretation of entrepreneurship as a legitimate form of economic activity that can vary across geographic regions and can evolve over time. In places where entrepreneurship has become institutionalized and taken for granted as an appropriate career path, individuals will be more apt to engage in entrepreneurship. The legitimation of entrepreneurship and the associated shared frameworks and mental models not only influence entrepreneurs but also shape the extent to which local customers and resource-holders accept and support new ventures. In another example from Saxenian’s study, one entrepreneur noted:

There is no way that I could have started Convergent in the Boston Area. I am convinced that *there are definite cultural differences* in Silicon Valley compared with Route 128 . . . When I started Convergent, I got commitments for \$2.5 million in 20 minutes from three people over lunch who saw me write the business plan on the back of a napkin. They believed in me. In Boston, you can’t do that. It’s much more formal. People in New England would rather invest in a tennis court than high technology. (Saxenian, 1996, p. 65; emphasis added)

These examples are not inconsistent with recent work on regional identity (Romanelli & Khessina, 2005), which suggests that existing industry clusters shape

the shared understandings of residents and external audience members about the suitability of the area for particular kinds of new businesses. I propose a slightly broader conceptualization and argue that locations with stronger cultural-cognitive acceptance of entrepreneurship will provide a social context conducive to entrepreneurship even across dissimilar industries, fields, and forms of organization. When entrepreneurship becomes institutionalized as a part of the local culture, social and material resources develop to foster entrepreneurship in the region. As Etzioni argues,

Legitimation is a major factor in determining the level of entrepreneurship that is found within one society as compared with others . . . The extent to which entrepreneurship is legitimate, the demand for it is higher; the supply of entrepreneurship is higher; and more resources are allocated to the entrepreneurial function. (1987, p. 175)

Prior entrepreneurial endeavors provide templates or blueprints for subsequent entrepreneurs to follow, and entrepreneurs acquire tacit knowledge, social ties, and self-confidence from existing organizations (Sorenson & Audia, 2000). This knowledge can even be carried from one industry context to another (Van Maanen & Barley, 1984; Barley & Kunda, 2004). Successful entrepreneurs often repeat the process themselves and instill their employees with entrepreneurial know-how (Burton et al., 2002), which increases their abilities to identify and exploit opportunities. Through this process, the act of entrepreneurship becomes taken for granted as a socially acceptable career path, and the act of entrepreneurship itself may even be viewed as an institution (Hwang & Powell, 2005; Tolbert et al., 2010).

In this way, the degree to which entrepreneurship is embraced within a local region not only encourages entrepreneurs to action but provides support for new ventures. A self-reinforcing cycle can occur in such areas, where new business foundings drive the creation of infrastructure supporting entrepreneurship, which in

turn strengthens the entrepreneurial culture. For example, existing investors become accustomed to working with entrepreneurs and outside investors are attracted to the area. Professionals such as attorneys, venture capitalists, accountants, and consultants develop routines and procedures for working with entrepreneurs, and networks emerge for fellow entrepreneurs to share ideas, broker connections, and provide moral support. Customers and other resource-holders become familiar with interacting with new ventures and are more open to supporting novel business models.

Regional culture can provide an overarching interpretive framework that may at times be inconsistent with the cognitive, normative, or regulative pressures associated with other spheres of social influence. In this way, a regional culture fostering entrepreneurship may even counteract social pressures constraining entrepreneurship in the profession, or industry. For example, one doctor I interviewed mentioned that even though his medical peers were skeptical of his intentions to start a new business, he was encouraged by his interactions with individuals *outside* of the profession. From regular social interactions with acquaintances at dinner parties and sporting events, he picked up tacit knowledge about components of entrepreneurship that were consistently part of the ongoing conversation. He indicated that this knowledge and social support for entrepreneurship encouraged him to continue to pursue entrepreneurial endeavors, despite the contradictory pressures in his profession. Accordingly, I argue that in regions with a stronger culture of entrepreneurship, the propensity for doctors to engage in entrepreneurial behavior will increase.

Hypothesis 1: ASC founding rates will be higher in regions with a stronger culture of entrepreneurship.

For-Profit Logics in the Field of Health Care

In addition to the influence of cultural-cognitive forces across geographic regions, beliefs, values, and understandings can also be influenced by social forces within an organizational field or industry. Institutional elements are portable and are transmitted by various types of carriers, including consultants, contract workers, and professionals from other fields (Scott, 2008a). When prominent actors enter a new field, they carry with them foreign logics, or cultural understandings of the way things should be done. The importation of outside logics can be disruptive, and awaken actors to new opportunities, leading them to identify value in activities previously viewed as ineffective, or inappropriate. Kraatz and Moore (2002) illustrate this process in the context of higher education, where they found that colleges with presidents who migrated from schools with professional programs carried with them different skills, understandings, and values, making them more likely to adopt practices that had historically been viewed as inconsistent with the norms of higher education.

Over the past several decades, the composition of actors in the health care field has undergone significant change. Early on, hospitals were primarily affiliated with religious organizations and took the form of non-profit entities centered on providing a community good. However, since the 1980s a migration of profit-centered, efficiency-based organizations have entered the field, carrying with them the logics of managerial efficiency (Starr, 1982; Ruef & Scott, 1998; Scott et al., 2000).

Although some argue that the distinction between non-profit and for-profit hospitals is becoming increasingly blurry, it is clear that differences do exist. For-profit hospitals have been found to be more oriented toward maximizing profits by entering more-profitable markets (Noether, 1988) charging higher rates (Watt, Derzon, Renn, Schramm, Hahn, and Pillari, 1986), and focusing on more-profitable services (Pattison & Katz, 1983) than their non-profit counterparts. In their in-depth study of

institutional changes in the health care field in the Bay Area, Scott and colleagues (2000) found that the increase of managerial logics in the field of health care influenced hospital performance. Notably, they discovered that after 1980, business and managerial accreditations became a stronger predictor of hospital survival than medical accreditations (Scott et al., 2000, p. 157).

The corporate hospital model emphasizes logics of efficiency and profit that are often at odds with the logics of community care espoused by non-profit hospitals. As the corporate-run hospitals enter a region, they promote institutional change by instilling their profit-oriented values. Hospitals are particularly influential in the medical field because they are one of the primary sources of training, employing, and socializing physicians. In this function, they not only propel new values and beliefs regarding healthcare (i.e., efficiency) but also serve a role in providing knowledge, training, and blueprints for alternative methods of operating.

The advent of managed care has been shown to fundamentally change the skills required for physicians to practice medicine. One study reported that 94 percent of physicians indicated that managed care significantly changed the skills required to be a physician, and that of these physicians, 89 percent said the most essential new skills needed for their career success were those related to business and administration (Bucci, 1999). Physicians at for-profit hospitals have also been found to be less likely to express concerns about issues related to conflict of interest (Musacchio, Zuckerman, Jensen, & Freshnack, 1986). This is particularly relevant to the act of starting an ASC, because one of the major criticisms of ASCs is that they violate ethics of conflict of interest by enabling physicians to refer patients to a center in which they have a direct financial interest.

The ways in which for-profit entities can change the norms and beliefs in the health care field is illustrated by Gawande's (2009) investigation of health care in

McAllen, Texas. Noting the proliferation of for-profit entities in this community, Gawande writes:

About fifteen years ago, it seems, something began to change in McAllen. A few leaders of local institutions took profit growth to be a legitimate ethic in the practice of medicine . . . So here, along the banks of the Rio Grande, in the Square Dance Capital of the World, a medical community came to *treat patients the way subprime-mortgage lenders treated home buyers: as profit centers*. (Gawande, 2009, p. 11, emphasis added)

When logics that view patients as “profit centers” are imported into the organizational field of medicine, it fundamentally changes how doctors perceive entrepreneurial opportunities, making profit-generating activities a more acceptable possibility.

Hypothesis 2: *ASC founding rates will be higher in areas with a stronger logic of for-profit health care.*

Professional Advocacy

Within a given context, norms are often thought of as the rules of the game, or prescriptions of the behaviors that are desirable and acceptable. Norms not only dictate acceptable goals, or objectives, but also the means used to pursue those outcomes (Scott, 2008a). Within the professions, norms can be both empowering and constraining by specifying certain rights as well as restrictions (Hughes, 1958). Although normative institutions have often been viewed as durable, stable, and relatively unchanging, some research suggests that in order for them to persist, they must be maintained through communication, translation (Tolbert, 1988; Barley & Tolbert, 1997), and the enactment of rituals (Collins, 2004; Dacin, Munir, & Tracey, 2010). The work of establishing and maintaining normative institutions falls largely on the shoulders of professionals, who have been conceptualized as the most important crafters of institutions (Scott, 2008b). In particular, professional associations serve as

the vehicle to disseminate professional norms, beliefs, and values. As Merton notes, the obligation of professional associations is to

set rigorous standards for the profession and to help enforce them: standards for the quality of personnel to be recruited into the profession; standards for the training and education of the recruits; standards for professional practice; and standards for research designed to enlarge the knowledge on which the work of the profession rests (Merton, 1958).

Professional associations create, and disseminate, standards through various means such as publishing trade journals, holding conferences, and sponsoring professional development workshops. They enforce compliance to standards by formally reprimanding members, holding up deviant actors as examples, and revoking membership privileges. They also actively lobby for favorable regulatory policies and work to protect the autonomy of their professional members.

Within the medical field, the American Medical Association (AMA) has served as the dominant organization representing the values of physicians since its inception in 1847, and one of its first acts was to establish a code of ethics (American Medical Association, 2011). These ethical statements have been communicated to members over the years through various means including newsletters and journals, such as the *Journal of the American Medical Association*, which has been published weekly since 1883. More recently the AMA has published current information on its website and created a specific online tool called “Virtual Mentor,” which includes a library of ethical dilemmas and case studies to illustrate appropriate physician behaviors. Throughout its history, the AMA played a key role in shaping medical education in schools and hospitals (Starr, 1982) as well as sponsoring their own Continuing Medical Education (CME) programs. Through these and other means, the AMA has worked to establish, disseminate, and enforce standards within the medical profession. Prior studies provide evidence of the efficacy of the AMA in shaping

beliefs and actions and show that physician behavior is significantly related to AMA membership status (Goldman, 1974).

However, professions are not homogeneous communities (Barker, 1998; Powell, 1991), and as Scott and colleagues (2000) note, since 1940, the physician specialty population in the United States has gone from below 20 percent to over 80 percent. The rise in physician specialization has led to the proliferation of different specialty medical associations, resulting in field fragmentation and conflict over jurisdictional authority. As new professional associations emerge, their mission is to advance the agendas of their respective members. Multiple professional associations come into conflict as they serve the interests of their specialist communities and engage in political processes to maintain boundaries and standards of behavior (Greenwood, Suddaby, & Hinings, 2002). In the medical field, this results in turf wars over the authority to define appropriate methods of health care and often comes into conflict with other professional bodies. For example, from its inception, the American College of Surgeons (ACS), a specialty professional association for surgeons, has drawn the ire of the AMA. Viewing the ACS as a encroaching on its terrain, the AMA trumpeted its concern over this new association in editorials and formal statements published across the country. Illustrative of this opposition, the Chicago chapter of the AMA drafted a memorandum that included the following language:

. . . be it further resolved that we will work in every legal and ethical way possible to unite the members of the . . . American Medical Association throughout the different states into a unit against the above named American College of Surgeons and its individual members and against the principle for which the American College of Surgeons stand. (Webster, McLaughlin, & Davis, 1914, p. 79)

In addition to working to maintain the autonomy of their members and promote their own ideologies, professional associations can facilitate entrepreneurship in several ways. First, they help new technologies or practices obtain legitimacy by

providing endorsements, or certifications. For example, the American College of Surgeons formally endorsed the practice of freestanding ambulatory surgery in 1981, signaling that such practices were safe and appropriate. They also increase awareness and validate the efficacy of new practices by sponsoring and publishing research, and by disseminating information to the public.

Second, new practices often diverge from existing beliefs and values. In these instances, professional associations play a key role in engaging in framing processes to recast these new practices as congruent with widely held beliefs of the field (Meyer & Rowan, 1977). Frames provide a “schemata of interpretation” (Goffman, 1974, p. 21) that alters how entrepreneurs and others evaluate opportunities. In the case of ASCs, the American College of Surgeons actively engaged in framing the development of ASCs as congruent with the broader values and ethics of medicine, by emphasizing the benefits provided by ASCs in reducing health care costs, providing greater access to care, and providing greater convenience for patients. By framing ASCs as consistent with the broader values of the medical field, the American College of Surgeons provided a narrative for surgeons to justify the act of establishing surgery centers. Rather than engaging in an entrepreneurial activity that is frowned upon in the larger field of medicine, they framed the act as in line with the norms of medicine that are aimed at providing more patients with access to high-quality care in a more efficient and cost-effective manner. Illustrative of this framing activity, in a recent letter to Congress lobbying for favorable ASC reimbursement policies, the American College of Surgeons emphasized the benefits to taxpayers and patients provided by ASCs, saying, “not only have ASCs been shown to save Medicare more than \$3 billion per year as an alternative setting to the hospital outpatient department, but they also provide a lower cost option for patients in need of surgical care” (Hoyt, 2011).

In addition to these framing tactics, professional associations can foster entrepreneurship by lobbying for favorable regulations and incentives, establishing standards and guidelines, disseminating best practices, and providing social spaces to connect and network with other entrepreneurs and resource-holders. Thus, I predict that as the number of professional associations advocating for ASCs in a state increases, physicians will be more likely to establish ASCs in those locations.

Hypothesis 3: *ASC founding rates will be higher in states with a greater presence of professional associations advocating for ASCs.*

Institutional Influences on Entrepreneurial Strategy

In addition to influencing the decision to start new ventures, cultural institutions are also likely to shape the organizational form, strategies, product offerings, and procedures adopted by new ventures. Indeed, as Aldrich and Ruef put it, “competencies and routines used in organizing are also culturally embedded and historically specific” (2006, p. 179). Building on the theoretical arguments outlined in the previous section, in this section I discuss how the culture of a region as well as that embedded in the local professional field may shape the organizational forms and strategies adopted by entrepreneurs.

One of the fundamental questions entrepreneurs must address is what products and services they will offer. This decision not only holds strategic implications related to the resources they will require, the customers they will serve, and the firms they will compete with, but also has important social consequences for how the organization is viewed and judged by others. The organizational form a firm takes shapes its identity, the category in which it will be evaluated, and consequently the beliefs and expectations held by audience members (Hannan, Polos, & Carroll, 2007). Firm identities consist of social codes, or rules that specify the features the

organization is expected to possess, and represent the default expectations of audiences about the organizational properties (Polos, Hannan, & Carroll, 2002; Hannan et al., 2007; Hsu & Hannan, 2005). Organizations acquire a social identity from factors such as the industry to which they belong, the organizational form they employ, and the accrediting bodies to which they belong (Rao, Morrill, & Zald, 2000). Thus, identity emerges as a combination of the organizational traits and the perception and categorization of audience members. As new organizational forms proliferate, shared interpretations and mental maps of the characteristics of these forms become embedded in the cultural environment. Through this culturally shared categorization schema markets are created and models are formed that provide order and structure for making sense of new markets (White, 2002).

Sharing a similar identity has many implications for organizations, some positive and others negative. First, being categorized along with similar others can provide legitimacy through signaling membership in an acceptable category (Zuckerman, 1999). Alternatively, when organizations deviate from the shared categorical expectations, they risk sanctions, devaluation, and lack of attention from audience members (Hsu & Hannan, 2005; Zuckerman, 1999; Kennedy, 2008). For example, Zuckerman (1999) found that a firm's stock price traded at a discount when the firm was not categorized with similar others and subsequently not covered by analysts specializing in the industry. In a similar study, Zuckerman, Kim, Ukanwa, and Von Rittmann (2003) demonstrated the opportunities and constraints that occur from being perceived as similar to others. In their analysis of the box-office success of feature films, they found that films classified as major releases enjoyed greater mass-market success, but were unable to gain access to the "art house" market. These studies indicate that the characteristics by which organizations are perceived as similar

to others place boundaries around the arena in which the organization can compete and define its expectations.

Furthermore, innovation often involves deviating from existing categories, and so although category conformance may provide legitimacy benefits, it may also hamper the adoption of more innovative practices for fear of social sanctioning. Even Zuckerman (1999) acknowledges the Schumpeterian view that “the greatest returns likely flow to those who innovate by creating new categories” (pp. 1402–1403). At the broadest level, new ventures can engage in strategies to become *generalists* or *specialists* (Carroll, 1985; Carroll & Swaminathan, 2000; Swaminathan, 2001). Generalists operate over a wide range of products or services, compete in multiple markets, and serve multiple audiences, while specialists are more perceptually focused and operate within a limited niche with more-focused technical competencies (Carroll, Dobrev, & Swaminathan, 2002). Each strategic approach is associated with its own set of pros and cons, and generalist strategies are thought to be better suited for exploration, while specialist strategies enable exploitation. Thus, for entrepreneurs seeking the Schumpeterian kinds of returns associated with more-novel innovations, a generalist strategy is well suited to provide the freedom to explore and experiment. However, in the complex institutional environment of health care, the complexity of categorization goes beyond the cognitive dimension and also has normative roots grounded in the ethics of health care. As mentioned previously, a long-standing ethical principle in the field of medicine is that “a physician should limit the source of his professional income to medical services *actually rendered by him*, or under his supervision, to his patients” (AMA, 1957, p. 3; emphasis added). Thus, specialized practices more closely match this normative ideal of physician income derived from the direct provision of care. Alternatively, as practices grow in scope to offer a wider

array of services, enabling the physician owners to profit from services they are not involved with, it encroaches upon this normative line of expected behavior.

In order for organizations to be sanctioned for deviating from established categorical expectations, the categories must first be established and legitimated. Initially, when markets are new and categories are still being defined, actors have more freedom to experiment with new things. During this nascent period, actors are free from the confinement of preconceived notions of what others expect that they “should be doing.” However, over time as categories become more clearly defined, the constraining forces and resulting sanctions increase. The solidifying of categories occurs as awareness rises correlated to the number of new organizations observed and reported on (Kennedy, 2008) and can also be influenced by the characteristics of the new entrants themselves. Recent work has explored the extent to which organizations with similar identities can aid in the establishment of coherent codes and categories. For example, McKendrick, Jaffee, Carroll, and Khessina (2003) found that because of the heterogeneous origin of disk-array producers, it was difficult for the disk-array producer organizational form to gain recognition and take hold. They further show that firms with perceptually focused identities help to establish the recognition of a new category of firms (McKendrick et al., 2003). In a similar vein, Romanelli and Khessina (2005) have suggested that regional economic clusters develop in part based on the perception of regional economies by audience members and that such perceptions are strengthened to the extent that the audience perceives the organizations operating in the region to share similar identities.

For clear categories to be established, relevant audience members must come to understand the distinct features that are associated with membership in a given category. As new organizational forms proliferate in nascent sectors, the attention given to these forms through the media and social discourse creates shared

interpretations and mental maps of the new category (Kennedy, 2008). As this categorical clarifying process unfolds, the collective understanding and expectations of firms in a given category become embedded in the social landscape and as such deviations from the mold become more apparent. Therefore, as the consensus around organizational characteristics in an emerging category increases, deviations from the norm will be less likely. In areas where the single-specialty model (providing only one surgical specialty and no other ancillary services) has become the dominant organizational form, entrepreneurs should be less apt to deviate from this model by adopting strategies that involve offering more services. However, in cases where a dominant organizational design has not emerged, institutional uncertainty ensues. Institutional uncertainty may come from various sources. First, as field members become increasingly specialized, it leads to greater fragmentation and conflict over jurisdictional authority. For example, Scott and colleagues' (2000) study of health care in the Bay Area shows how the increase of physician specialty associations led to fragmentation of physician normative consensus. Without consensus around a unified set of norms, actors are given more leeway in interpreting social expectations, and the "rules of the game" are expanded to provide for a wider playing field. For example, Goodrick and Salancik (1996) found that greater institutional uncertainty provided hospitals with more discretion in determining when to utilize cesarean-section procedures. Accordingly, I argue that when the population of ASCs is fragmented, consisting of a more diverse set of organizational forms, entrepreneurs will experience less constraints in the strategies they adopt.

Hypothesis 4: *The number of services offered by ASCs will be higher in areas with greater diversity in organizational forms adopted by ASCs.*

Given the trade-offs between sanctions from violating categorical expectations and the possibility of increased financial returns associated with innovations, why

might some entrepreneurs be more likely to engage in practices that deviate from categorical expectations? In addition to the degree to which an expected form is institutionalized, another factor may be the extent to which the audience members devalue organizations that depart from categorical expectations. When audience sanctioning is lower in a given context, entrepreneurs should feel more freedom to experiment with non-conforming strategies. Building on the theoretical propositions in the previous section, we might expect lower social sanctioning to occur in locations where there is a stronger culture of entrepreneurship. When entrepreneurial logics that value exploration, risk-taking, and change to the status quo are embedded in the local environment, audience members should be more accepting of novel organizational forms and entrepreneurs more emboldened to experiment with strategies departing from the norm.

Hypothesis 5: *The number of services offered by ASCs will be higher in regions with a stronger culture of entrepreneurship.*

In a similar way, in areas where the traditional norms of medicine have been replaced with ideologies focused on efficiency and profit, audience members such as insurance providers, patients, and other doctors will be more open to new forms of for-profit health care. As noted above, research has indicated that when physicians are exposed to for-profit health care, they experience a change in beliefs and become more open to for-profit models and less concerned about normative constraints such as conflict-of-interest issues (Musacchio et al., 1986). In this way, physician entrepreneurs in areas where for-profit ideologies are embedded in the local health care field should be more open to adopting profitable strategies even if they conflict with traditional norms of medicine.

Hypothesis 6: *The number of services offered by ASCs will be higher in areas with a stronger logic of for-profit health care.*

Finally, I argue that local cultures of entrepreneurship and for-profit health care will be most influential in areas where a standard organizational form has not emerged. The lack of institutional constraints associated with organizational fragmentation will be amplified by both regional cultures espousing entrepreneurial values and for-profit logics embedded in the local health care field.

Hypothesis 7: *The positive effect of institutional fragmentation on the number of services offered by ASCs will be amplified in areas with a stronger culture of entrepreneurship.*

Hypothesis 8: *The positive effect of institutional fragmentation on the number of services offered by ASCs will be amplified in areas with a stronger culture of entrepreneurship.*

Methods

Data

To test these hypotheses, I constructed a state-level database of all ASCs established in the United States from 1990 to 2008. This period captures the major period of the initial industry growth, as the number of ASCs in operation ballooned from just over 1,252 in 1990 to 5,229 by 2008. Data on all ASCs founded during this period were obtained from the Center for Medicare & Medicaid Services (CMS) Provider of Service File. In order to be eligible for Medicare or Medicaid reimbursement, health care facilities must obtain certification from CMS. Reimbursements from Medicare and Medicaid account for almost 40 percent of all procedures performed at ASCs (MEDPAC, 2010). Because nearly half the procedures performed at surgery centers are paid for by CMS, it is unfeasible to operate an ASC without being certified by CMS. As an added measure to assess the completeness of the CMS data, I compared these data with available data from a sample of state government agencies responsible for licensing health care facilities. I also interviewed

ASC operators and used a snowball sampling approach to ask whether they knew of any ASCs that were not CMS-certified. Through these procedures, I did not find any evidence that the CMS files did not contain the complete population of ASCs. The only discrepancies noted involved centers that specialized exclusively in elective plastic surgeries that would not qualify for reimbursement by Medicare or Medicaid. In total, these data represent over 19 years of entrepreneurial activity for all ASCs established in the United States.

Although arguments could be made for using different geographical demarcations as the unit of analysis, I focus on entrepreneurial activity at the state level for several reasons. First, health care regulations are primarily adopted and enforced at the state level, and analysis conducted at more-local levels (i.e., MSA, health services area, county, etc.) does not allow for consideration of variation in state regulatory policies. Second, professional associations are typically organized at the state level, with individual state chapters cooperating to advance issues at the national level but operating as independent entities focused on issues relevant to members in the state. Finally, states represent one level on which to study regional cultures, and prior studies have indicated that state cultures play an important role in shaping ideologies and behaviors (Erikson, McIver, & Wright, 1987).

Dependent Variables

To analyze the founding rates of ASCs, I use a count of the total number of ASCs founded in each state in each year. In this case, the founding event refers to the date on which an ASC first began to provide ambulatory surgery services to patients. This variable comes from the CMS Provider of Service File and includes all ASCs founded from 1990 to 2008.

For the hypotheses related to the strategies adopted by new ASCs, I create a count of the total number of services offered by each ASC. Although the most common form adopted by ASCs involves offering only one surgical service (single-specialty), ASCs can adopt additional surgical services as well as ancillary services such as running an onsite pharmacy, imaging center, or lab. The number of services offered by ASCs in this data set ranged from one to 16.

Explanatory and Control Variables

In order to analyze the impact of regional *entrepreneurship culture* on ASC foundings, I identified four key measures that tap into distinct dimensions of this construct: the total number of new firms established (from all industries) in a state, the number of venture capital (VC) firms operating in a state, the number of venture-backed companies in a state, and a count of the total number of newspaper articles published in the state discussing entrepreneurship. The total number of new establishments captures the overall level of entrepreneurial activity in the state. The number of VC firms taps into the collective knowledge and infrastructure that has developed to support entrepreneurship and is a symbol of the degree to which entrepreneurship is institutionalized. I included the number of VC-backed firms as an indicator of high-profile entrepreneurial events that garner more attention and may thus be more salient to actors in the field. It is important to note here that ASCs do not typically obtain VC financing, so these two variables related to venture capital do not measure resources directly associated with ASC foundings but rather signal the institutionalization of entrepreneurship more generally. Finally, the count of the local newspaper references to entrepreneurship measure the degree to which entrepreneurship is part of the daily discourse in the region. Data on new business establishments were obtained from the U.S. Small Business Administration, and

venture capital data came from the SDC VentureExpert database. The data on newspaper counts were obtained by using a query in the Access World News database to obtain all articles containing a form of the word “entrepreneur*” based on the total number of newspapers included in the database for each state.

After obtaining these four variables, I performed an exploratory factor analysis (Kim & Mueller, 1978). Using the principal components method and applying varimax rotation techniques to maximize the sum of the variances of the squared loadings, I found that all four variables loaded onto one factor with an eigenvalue of 3.18, well above the generally accepted threshold of 1.0 (Kaiser, 1960) required to retain the factor. This factor explained a cumulative variance of 79.36 percent. I included this factor in the models as a measure of the regional culture of entrepreneurship. The results of the factor analysis are reported in Table 3.

Table 3. Factor Loadings for Entrepreneurial Culture Variable

Variables	Factor Loadings
VC-backed companies	0.9539
VC firms	0.8988
Newspaper articles	0.7796
Total startups	0.9214
Eigen value	3.18
Cumulative variance explained	79.36%

To measure the influence of pressures within the organizational field aligned with logics of business and efficiency, I include a variable consisting of the

percentage of hospital beds operated by investor-owned hospitals. Hospital beds are a common measure of the availability of medical care in a community, and the proportion of investor-owned beds provides an indicator of the percent of health care services that are provided by for-profit entities. These data were obtained from the American Hospital Association Guide to the Health Care Field.

I measured the number of professional societies advocating on behalf of ASCs in a state by obtaining a count of the *number of professional surgical associations* in a state from the Encyclopedia of Medical Organizations and Agencies and the National Center for Charitable Statistics (NCCS).

To assess the degree to which a dominant ASC organizational form has emerged, I construct an index of organizational diversity. This diversity index is calculated as $1 - \sum p_i^2$, where p is the proportion of group members in a given category and i is the number of different categories (Blau, 1977). This measure provides a score from zero to one, with “0” representing perfect homogeneity and “1” representing perfectly heterogeneity.

A number of regulatory, economic, and social factors are likely to influence variation in ASC founding rates. From a regulatory standpoint, the primary mechanisms used to regulate the establishment of new health care facilities are certificate of need (CON) laws. CON laws require prospective ASC founders to submit a detailed application demonstrating that the facility is justified by an unmet demand for the proposed surgical services, and state officials must grant approval before any new health care facilities can be established. I include a dummy variable (1= CON; 0 = No CON) to account for states that have incorporated CON laws. Information on CON laws was obtained from the U.S. Certificate of Need Sourcebook and the respective state departments of health.

In addition to the impact of regulatory policies, ASC foundings may also be driven by various economic factors such as the supply of physicians at risk for starting a surgery center and the demand for surgical services in an area. To control for these possibilities, I include a measure of at-risk physicians, which consists of the total number of physicians in surgical specialties that are apt to practice in ASC settings. Notably, this variable excludes physicians who are unlikely to practice in a surgery-center setting, such as general practitioners, family doctors, and pediatricians. The data used to construct this variable come from the American Medical Association's annual publication of Physician Characteristics.

ASC foundings may also be driven by the demand for surgical procedures. I control for this in several ways. First, I account for the percent of uninsured individuals in each state. Health insurance coverage is an indicator of individuals' ability to access and pay for health care services. As such, higher rates of uninsured individuals may indicate a smaller market for surgical services. These data come from the Kaiser Family Foundation State Health Facts. To more precisely measure the demand for surgical services, I obtained data on the total number of surgical procedures performed in the prior year from the Dartmouth Atlas of Health Care (<http://www.dartmouthatlas.org>). This is the most direct measure of demand for the services provided by ASCs.

Related to the demand for surgical services, it is also important to control for competition and the supply of organizations to meet the surgical demands. Competition comes from both hospitals and other ASCs. Accordingly, I control for the number of *hospitals per capita* using data from the American Hospital Association Guide to the Health Care Field. To control for the influence of existing ASCs as sources of industry legitimation and competition, I include a measure of ASC density, calculated as the total number of ASCs operating in the state, and a measure of the

squared ASC density. This methodology follows a long line of population ecology literature which indicates that there is a curvilinear relationship such that increasing organizational density increases founding attempts initially through legitimation effects, but that after a certain point, competitive pressures lead to fewer founding attempts. Finally, for the models investigating founding rates, I include a measure of the state business *tax rates* to control for broader conditions influencing the climate for entrepreneurship. I did not, however, include this variable in the models predicting the strategies and scope of services adopted by these new ventures, as there was no theoretical reason why tax rates should affect these decisions. These data were obtained from the Tax Foundation.

Estimation and Model Specification

In order to test the first three hypotheses related to the number of ASCs founded, I use event-count models, because in each state and year multiple founding events can occur. The use of count models allows for testing these aggregated state founding events. Initial tests indicated that the data were overdispersed or that the variance did not equal the mean and thus violated the assumptions of the traditional Poisson regression model. Therefore, I utilized negative binomial models, which are designed to handle overdispersed data (Hilbe, 2007) to analyze the state-year panel data. To help control for the unobserved heterogeneity across states, I used fixed-effects models in STATA 10, using the *xtnbreg, fe* command. I also lagged all independent variables by one year, to account for the time delay between the decision to start a new ASC and when it becomes operational.

Table 4. Means, Standard Deviations, and Correlations for Variables Included in Models of ASC Founding

	Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1	Certificate of Need (<i>1 = yes; 0 = no</i>)	0.744	0.437										
2	At-Risk Physicians (<i>per 10,000 people</i>)	5.984	1.160	0.294									
3	Surgeries Performed	97.333	10.790	-0.061	-0.115								
4	Hospitals (<i>per 10,000 people</i>)	0.418	0.266	-0.316	-0.461	0.315							
5	ASC Density(/100)	0.609	0.907	-0.169	0.234	0.158	-0.269						
6	Percent Uninsured	0.143	0.082	-0.214	-0.181	-0.023	0.016	0.172					
7	Tax Rate	0.095	0.011	0.055	0.387	-0.153	-0.286	0.057	-0.198				
8	Gross State Product (<i>log</i>)	11.552	1.082	0.040	0.431	0.248	-0.520	0.637	-0.013	0.250			
9	Entrepreneurship Culture	0.009	1.008	-0.167	0.347	0.020	-0.317	0.772	0.094	0.238	0.713		
10	Investor-Owned Hospitals (<i>% of total beds</i>)	0.115	0.114	-0.132	-0.210	0.127	-0.061	0.217	0.449	-0.473	0.129	0.081	
11	Surgical Societies (<i>/at-risk physicians per 1,000 people</i>)	10.175	13.466	-0.155	0.321	0.104	-0.333	0.604	-0.003	0.745	0.745	0.782	0.025

Table 5. Negative Binomial Models of ASC Foundings (State Fixed-Effects)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Certificate of Need (1 = yes; 0 = no)	-0.476** (0.167)	-0.446** (0.153)	-0.434* (0.174)	-0.457** (0.167)	-0.348* (0.157)
At-Risk Physicians (<i>per 10,000 people</i>)	-0.016 (0.094)	-0.042 (0.120)	0.032 (0.096)	0.057 (0.105)	-0.035 (0.123)
Surgeries Performed	0.037*** (0.006)	0.017** (0.006)	0.038*** (0.006)	0.037*** (0.006)	0.017** (0.006)
Hospitals (<i>per 10,000 people</i>)	-1.363*** (0.380)	-1.098* (0.479)	-1.409*** (0.381)	-1.488*** (0.392)	-1.288* (0.511)
ASC Density (/100)	0.050 (0.115)	-0.188 (0.136)	-0.001 (0.115)	0.073 (0.114)	-0.235+ (0.128)
ASC Density(/100) Squared	-0.019 (0.016)	-0.059** (0.019)	-0.010 (0.016)	-0.040* (0.018)	-0.063** (0.019)
Percent Uninsured	-0.089 (0.567)	0.584 (0.522)	-0.054 (0.573)	-0.262 (0.566)	0.529 (0.534)
Tax Rate	-19.840** (6.455)	-0.677 (7.560)	-16.874* (6.614)	-20.166** (6.457)	-1.488 (7.377)
Gross State Product (<i>log</i>)	0.109 (0.146)	1.141*** (0.290)	0.034 (0.147)	-0.076 (0.173)	1.022*** (0.283)
H1: Entrepreneurship Culture Factor		0.427*** (0.084)			0.310*** (0.092)
H2: Investor-Owned Hospitals (% <i>of total hospital beds</i>)			2.034** (0.701)		1.670* (0.756)
H3: Surgical Associations (<i>/at-risk physicians per 1000 people</i>)				0.021* (0.010)	0.026** (0.010)
Constant	-0.020 (1.760)	-10.195*** (2.715)	0.021 (1.745)	1.616 (1.954)	-8.846*** (2.557)
N	784	686	784	784	686
chi2	110.604	216.642	119.072	115.650	239.402

Standard errors in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.000$.

The remaining hypotheses move from the state to the firm as the unit of analysis. Here, too, the dependent variable (number of services offered by ASCs) represents count data. As was the case with the count of startups, the count of services offered was found to be overdispersed, and therefore I also use negative binomial models to analyze the hypotheses related to the number of services offered by each ASC.

Results

Table 4 presents the correlation matrix along with summary statistics for all variables in the analysis. Table 5 presents the results of the analysis using negative binomial models to predict the number of ASCs established in each state in each year. The first model is the baseline model with all control variables. Models 2 through 4 add each explanatory variable in the order of hypotheses, and Model 5 presents the full model with all variables.

Across all models, it is apparent that state regulatory policy is significantly associated with ASC foundings. In fact, these analyses suggest that states that enact CON laws experience about 30 percent fewer ASC foundings. We also see that the number of surgeries performed in the prior year is significantly associated with higher rates of ASC foundings, indicating that an increase in demand for surgeries drives entrepreneurship in this context. As we would expect, increasing competition between both hospitals and other ASCs appears to dampen ASC founding rates.

Table 6. Means, Standard Deviations, and Correlations for Variables Included in Models of Services Offered

	Variables	Mean	S.D.	1	2	3	4	5	6	7	8
1	Certificate of Need (<i>1 = yes; 0 = no</i>)	0.642	0.479								
2	At-Risk Physicians (<i>per 10,000 people</i>)	6.334	1.074	0.287							
3	Surgeries Performed	99.959	7.495	0.144	0.076						
4	Hospitals (<i>per 10,000 people</i>)	0.309	0.166	-0.154	-0.481	0.272					
5	ASC Density(/100)	1.599	1.523	-0.406	0.154	-0.116	-0.375				
6	Percent Uninsured	0.155	0.066	-0.390	-0.191	-0.091	-0.006	0.366			
7	ASC Form Diversity	0.576	0.124	-0.174	0.023	0.336	0.104	0.108	0.237		
8	Entrepreneurship Culture	0.980	1.966	-0.518	0.0253	-0.276	-0.298	0.876	0.347	0.056	
9	Investor-Owned Hospitals (<i>% of total beds</i>)	0.146	0.121	-0.253	-0.319	0.1088	0.098	0.269	0.578	0.364	0.222

Table 7. Negative Binomial Models of Count of Services Offered (Firm Level)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Certificate of Need (<i>I = yes; 0 = no</i>)	-0.109*** (0.032)	-0.063 ⁺ (0.033)	-0.026 (0.036)	-0.124*** (0.032)	0.004 (0.037)	0.026 (0.038)	0.015 (0.038)
At-Risk Physicians (<i>per 10,000 people</i>)	-0.103*** (0.014)	-0.114*** (0.015)	-0.102*** (0.015)	-0.075*** (0.015)	-0.091*** (0.016)	-0.088*** (0.016)	-0.092*** (0.017)
Surgeries Performed	0.002 (0.002)	-0.004* (0.002)	0.007** (0.002)	-0.001 (0.002)	-0.000 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Hospitals (<i>per 10,000 people</i>)	-0.226* (0.099)	-0.255* (0.103)	-0.203 ⁺ (0.109)	-0.219* (0.101)	-0.234* (0.113)	-0.196 ⁺ (0.113)	-0.218 ⁺ (0.113)
ASC Density (/100)	-0.041*** (0.010)	-0.038*** (0.010)	-0.160*** (0.021)	-0.052*** (0.011)	-0.173*** (0.021)	-0.168*** (0.021)	-0.171*** (0.021)
Percent Uninsured	-0.052 (0.248)	-0.643* (0.267)	0.022 (0.254)	-1.098*** (0.294)	-1.173*** (0.308)	-1.425*** (0.318)	-1.126*** (0.309)
H4: ASC Form Diversity		1.361*** (0.147)			1.178*** (0.160)	0.236*** (0.030)	0.072*** (0.017)
H5: Entrepreneurship Culture Factor			0.113*** (0.016)		0.118*** (0.016)	0.161*** (0.018)	0.117*** (0.016)
H6: Investor-Owned Hospitals				0.929*** (0.135)	0.659*** (0.146)	0.562*** (0.149)	0.160*** (0.018)
H7: Ent. Culture × No Ancillary						0.057*** (0.015)	
H8: Investor-Owned × No Ancillary							0.031* (0.014)

Robust standard errors in parentheses ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.000$.

Table 7 (Continued)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	2.055*** (0.193)	1.973*** (0.194)	1.531*** (0.224)	2.154*** (0.191)	1.573*** (0.219)	2.428*** (0.233)	2.377*** (0.238)
<i>N</i>	4579	4579	4105	4579	4105	4105	4105
chi2	109.046	197.458	143.653	160.209	263.748	291.550	271.690

Model 2 adds the factor of entrepreneurship culture. Here as well as in the full model, we find support for Hypothesis 1 and see that higher ASC founding rates are associated with stronger regional cultures of entrepreneurship. The results also indicate that this relationship is quite meaningful. An increase of one standard deviation in the regional culture of entrepreneurship is associated with a 36.7 percent increase in the number of ASCs founded. Models 3 and 5 provide support for Hypothesis 2, indicating that an increasing proportion of investor-owned hospitals is associated with higher ASC founding rates. Interpreting these results, we see that an increase of one standard deviation in the proportion of investor-owned hospital beds results in a 20.9 percent increase in ASC foundings. Finally, Models 4 and 5 support the idea that in states with a greater presence of professional associations advocating for ASCs, ASC founding rates will be higher. This confirms our expectations outlined in Hypothesis 3, and suggests that an increase of one standard deviation in the number of professional associations advocating on behalf of ASCs is associated with a 41.9 percent increase in the number of ASCs founded.

In sum, these results provide support for the three hypotheses predicting that institutional pressures across different spheres of social influence (i.e., region, organizational field, profession) play a role in shaping the propensity for doctors to become entrepreneurs. Even though long-standing professional norms of medicine are at odds with doctors engaging in this type of entrepreneurial activity, these results suggest that doctors are subject to other social forces beyond the norms of their profession and that these forces influence the propensity for doctors to engage in entrepreneurial activities.

Table 6 reports the results correlations and descriptive statistics for the second grouping of hypotheses, and Table 7 provides the results of the negative binomial models investigating the number of services offered by new ASC ventures. It is

interesting to note that across all models, the number of physicians is a significant predictor associated with ASCs offering fewer services. This may be an indicator of the strength of physician norms favoring the single-specialty model or an indicator of competition driving ASCs to focus on competing in a more specific market niche. In a similar manner, the other measures of competition—the number of hospitals and other ASCs in the area—also indicate a significant and negative relationship with the number of services offered by ASCs. Moving to the hypotheses, the models provide support for H4, that in areas where the ASC population is characterized by more diversity in organizational form, the number of services offered by new ASCs is higher. I also find support for H5. As Models 3 and 5 indicate, ASCs in areas with a stronger culture of entrepreneurship appear to adopt a greater number of services. Similarly, for H6, the results show that in areas with a greater proportion of health care administered by for-profit hospitals, the number of services offered by ASCs appears to be higher. Finally, the models also support H7 and H8, which predicted that the positive influence of more diverse ASC populations on the number of services offered by ASCs would be amplified in areas with a stronger culture of entrepreneurship and a stronger culture of for-profit health care.

Discussion and Conclusion

I have explored how different types of institutional pressures influence the propensity for certain professionals (doctors) to engage in entrepreneurial activity that deviates from the normative prescriptions of their profession. This work departs from traditional entrepreneurship perspectives based on economic incentives, and contributes to a growing number of studies proposing that entrepreneurship is a socially constructed activity. This is not to say that economic factors are not important drivers of entrepreneurship, but rather to argue that the institutional environment plays

a critical role in shaping how entrepreneurs *perceive* economic opportunities. In particular, this research sheds light on instances where potential entrepreneurs face economically enticing, yet normatively questionable, opportunities. The findings from this study suggest that economic incentives alone may not be enough to propel actors to exploit opportunities if doing so may be viewed as socially inappropriate. Under such circumstances social support from overlapping spheres of influence may be drawn upon to enable entrepreneurial activities that are constrained by pressures in other social spheres.

From a theoretical perspective, this research elaborates on a surprisingly limited number of studies explicitly connecting institutional theory to entrepreneurial processes (Tolbert et al., 2010). Although a few recent studies have shown how powerful change agents such as social movements promote changes to the institutional environment that open up new entrepreneurial opportunities (Weber et al., 2008; Hiatt, Sine, & Tolbert, 2009; Sine & Lee, 2009), much of the focus of these studies emphasizes the role of change agents in creating demand for new technologies by highlighting problems with the status quo and legitimating alternative solutions. However, this study differs in that it is one of the few to consider instances in which enticing economic incentives exist that make use of legitimate technologies but the act of exploiting such opportunities conflicts with prevailing expectations and norms of appropriate behavior.

A notable contribution is in bringing the broader societal elements such as culture back in to the study of entrepreneurship (Friedland & Alford, 1991) and considering variations in the extent to which the act of entrepreneurship itself is an institutionalized part of the local society (Tolbert et al., 2010; Tolbert & Hiatt, 2010). Scholars of organizations have long pointed to the important role of regional culture in influencing economic behavior (Weber, 1958; Kirzner, 1984), and institutional

theorists have specifically argued that organizations reflect the cultural elements of areas in which they are founded (Marquis, Glynn, & Davis, 2007). Although a few impactful studies have used qualitative methods to illustrate cultural linkages to entrepreneurship (e.g., Saxenian, 1996), this dissertation provides a unique attempt to quantitatively measure regional variations in cultural dimensions and assess their impact on rates of entrepreneurship. In this way, it moves beyond studies of national culture based on Hofstede's (1984) dimensions and proposes an alternative measure of entrepreneurship culture that can be applied to more proximate geographic areas than nation-states. By highlighting factors that influence variation in regional rates of entrepreneurship, this dissertation directly speaks to Schoonhoven and Romanelli's declaration that "the most important challenge facing entrepreneurship researchers today involves explaining why some local communities promote the founding of large numbers of organizations while others do not" (2001, p. 66). This study also represents a timely response to recent articles pleading for "more work . . . to be done to cultivate a more cosmopolitan economic sociology that takes culture seriously" (Lounsbury, 2007, p. 303).

Furthermore, by focusing on entrepreneurship in the professions, this research focuses on what some scholars have referred to as the most important set of institutional actors (Scott, 2008b, 2010). Professionals serve as key crafters and carriers of institutions which both enable and constrain behavior by those inside and out of the profession. In this way, professionals may at times construct sets of beliefs and prescribe behaviors that are at odds with entrepreneurial endeavors. By studying professions and entrepreneurship, this work builds on a few recent studies that directly consider the constraining role of professional norms on entrepreneurship. However, for the most part prior work has been limited to a focus on the social pressures operating *within* the profession, or organizational field. For example, in studying why

university scientists become entrepreneurs, Stuart and Ding (2006) linked entrepreneurial behavior to social factors within the profession—such as the influence of colleagues, co-authors, and departments. This dissertation adds to this literature by exploring the ways in which broader cultural forces *outside* of the profession influence entrepreneurial activity within the profession. It also adds to our understanding of how the importation of ideologies by outsiders and the collective action of those in the field can serve as mechanisms of institutional change, making socially questionable entrepreneurial opportunities more palatable.

Despite these contributions to existing literatures, this work is not without its limitations. I have argued that institutional pressures operate across multiple levels of social influence, yet this study was limited to the state as the primary unit of analysis. States were selected as the unit of analysis for several theoretical reasons, such as the fact that regulatory policy is primarily administered at the state level and professional associations are organized as state chapters; however, we should expect that social forces may also vary across more local geographic areas. Future studies should consider how the dynamics outlined in this paper operate in more local regions, such as metropolitan statistical areas, health services areas, or counties. Another limitation is that data for all states were not available prior to 1990. Although the period from 1990 to 2008 captures the main period of industry development and growth, the inability to capture the earliest period of industry emergence results in left-truncated data that cannot fully capture the dynamics during the nascent stages of industry emergence. During that initial period, when more uncertainty about the technical merits of outpatient surgery existed and the legitimacy of ASCs had not yet been established, social pressures are likely to have been even more salient in promoting or constraining entrepreneurial activity. Thus, analyses that include the earliest years of industry emergence would likely yield even stronger support for these arguments.

From a practical standpoint, the study of professionals as entrepreneurs is an important, yet surprisingly understudied, area (for a notable exception, see Stuart and Ding, 2006). Currently, health care costs in the United States exceed \$2.5 trillion, or 16 percent of GDP. While this dissertation makes no claims regarding the efficacy of ASCs to lower health care costs or to provide greater access to health care services, considering the powerful potential of professionals to develop innovations and create new ventures that address these kinds of problems is a crucial area of study. To date, policy looking to promote innovation and entrepreneurship has often centered on economic incentives and regulatory mechanisms. This study, however, suggests that it may also be important for policy makers to consider implementing social mechanisms that influence how actors interpret entrepreneurial opportunities. Given that professionals, such as physicians and scientists, occupy a special position in our society with access to expertise knowledge and valuable resources that enable them to develop and implement world-changing innovations, the study of professionals as entrepreneurs is a critical area of both theoretical and practical significance.

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